AMERICAN

JOURNAL OF INSANITY.

VOL. XLV. APRIL, 1889. No. IV.

UTICA, N. Y.

STATE LUNATIC ASYLUM.

Ellis H. Roberts & Co., Printers, 60 Genesee Street, Utica.

[Entered at the Post Office at Utica, and admitted for transmission through the Mails at second class rates.]

NOTICE TO

SUBSCRIBERS, ASYLUMS, LIBRARIES, &c.

The Publishers of the American Journal of Insanity, having reprinted the scarce numbers of the earlier volumes, are now prepared to furnish complete or partial sets at greatly reduced rates.

Correspondence solicited.

Address,

American Journal of Insanity,
Utica, N. Y.

For Table of Contents see third page.

CAN-NOT

RE-PRODUCE

PHOTOGRAPH

TABLE OF CONTENTS.

FRONTISPIECE. Dr. Joseph Workman.

ORIGINAL ARTICLES:

PAGE.

The Encephalic Circulation and Its Relation to the Mind. By Henry Smith Williams, M. D., ... 465
Electric Door-Openers for Use in Asylums. By M. J. White, M. D., 487
Clinical Observations on the Action of Sulfonal in Insanity. By Wm. Mabon, M. D., ... 491
Clinical Cases: I—Mania in Exophthalmic Goitre. II—Exophthalmic Goitre in Mania. By C. K. Clarke, M. D., ... 500
A Case of General Paresis of Fourteen Years' Standing. By Wharton Sinkier, M. D., and Edward N. Brush, M. D., ... 503

MEDICAL JURISPRUDENCE:

Ayers *vs.* Russell *et al.*, ... 508

Transactions of the New England Psychological Society, ... 524

ABSTRACTS AND EXTRACTS:

The Relation between Trophic Lesions and Diseases of the Nervous System, ... 531
The Diagnosis and Surgical Treatment of Tumors of the Cerebrum, . 531
Senile Insanity, ... 532
Hyoscin, ... 534
The Brain and Moral Culture, ... 535
The Time of Occurrence of Epileptic Attacks, ... 535
Low Temperature in the Insane, ... 535
Katatonia, ... 536
Puerperal Insanity, ... 536
Syphilis, Tabes and General Paresis, ... 537
The Temperature in General Paresis, ... 538
Influence of Erysipelas upon Melancholia, ... 538
Disturbances after Railroad Accidents, ... 538
Chronic Bright's Disease (Arterio-Capillary Fibrosis) in its Relation to Insanity, ... 538
Is General Paralysis of the Insane Necessarily an Anomalous and Hopeless Disease? 539
Aphasia and Apraxia, ... 539
The Musical Sense in Idiots, ... 540
Sudden Death in the Insane, ... 541
Epileptic Asthma, ... 541

BOOK REVIEWS

The Insane in Foreign Countries. By William P. Letchworth,..... 542
La Raison dans la Folie, Étude pratique et médico-légale sur la persistance partielle de la Raison chez les Aliénés et sur leurs Actes raisonnables. Par le Dr. Victor Parant,..... 546
Electricity in Diseases of Women, with Special Reference to the Application of Strong Currents. By G. Betton Massey, M. D., 547
Progressive Muscular Dystrophies; the Relation of the Primary Forms to one another and to Typical Progressive Muscular Atrophy. By B. Sachs, M. D.,..... 548
Some Post-Hemiplegic Disturbances of Motion in Children. By Philip Coombs Knapp, A. M., M. D.,..... 551
Nervous Affections following Injury. "Concussion of the Spine," "Railway Spine," and "Railway Brain." By Philip Coombs Knapp, A. M., M. D., ... 551
Report of the Standing Committee on the Insane of the State Board of Charities,..... 552
Annual of the Universal Medical Sciences. Edited by Charles E. Sajous, M. D.,..... 555
Lectures on Nervous Diseases. By Ambrose L. Ranney, A. M., M. D., ... 557
Sixteenth Annual Report of the New York State Commissioner in Lunacy (for 1888,) 557

Our French Letter,..... 560

From our British Correspondent,..... 565

CORRESPONDENCE:

Acrophobia,..... 567
Insanity *vs.* Divilment,..... 568
The Quebec Asylum Commission, ... 569

NOTES AND COMMENTS:

Dr. Joseph Workman, ... 573
The Annual Meeting of the Association,..... 576
Machine Politics in Asylums,..... 576
Pathological Work at McLean Asylum, ... 578
Our French Letter, ... 578
Signs of the Times in Kansas, ... 579
Audi Alteram Partem, ... 580
The Case of Richard Barber, ... 585

OBITUARY:

James W. Ranney, ... 587
Werner Nasse, ... 587
William Henry Octavius Sankey, ... 587
James Maclaren,..... 587

QUARTERLY SUMMARY, ... 588

AMERICAN
JOURNAL OF INSANITY.
APRIL, 1889.

THE ENCEPHALIC CIRCULATION AND ITS RELATION TO THE MIND.

BY HENRY SMITH WILLIAMS, M. D.,
Assistant Physician, Bloomingdale Asylum, New York City.

Of old, it was denied that organic changes have even coincidence with psychic manifestations; but to-day, he who would aspire to be a *connoisseur*, or even a dilettant, in matters of the mind must know something of the mechanism in which mind finds its habitat. Every one now recognizes the importance here, as elsewhere, of practical inductive studies; and just at present problems pertaining to the dynamics of the encephalon are attracting especial attention. Of salient importance, it is everywhere admitted, is the circulatory apparatus. Alienists differ in opinion as to the exact relation which it bears to the *ego*, but all concede that the blood supply is one factor in the genesis of mind; and not only so, but that it is an absolutely essential one, and the one most easily demonstrable. And this latter fact gives it a fresh charm; for the modern mind clings ever to the tangible.

It is the purpose of the present paper to give a brief outline of the conditions under which the encephalic circulation is carried on; and, while steering as far as may be from controversial rocks, to make what seem to the writer some fairly warrantable suggestions as to the connection between vascular changes and mental states, normal and abnormal. But before entering upon the subject specifically, a prefatory word seems advisable—nay necessary—to prevent a possible misconception. While the present paper will, in keeping with its heading, deal almost exclusively with vascular conditions as somatic concomitants of psychical states, I would not be understood as wishing to relegate to the circulatory apparatus exclusively the conduct of the intellect. On the contrary, I recognize fully the salient importance of the "nervous" element, as being not only antecedent to the vascular

change, but its consequent as well, and, indeed, at all times its indispensable co-worker. My intention here is merely to present the more elementary, but more often neglected, phase of the subject, leaving the complementary aspect for consideration in a subsequent paper. So intimately associated are the two, however, that we can scarcely hope to be able to rigorously confine ourselves within the bounds of our subject; but we shall not cross them oftener than seems unavoidable. We will first study the conditions under which the encephalic circulation is carried on.

These conditions, in themselves, are not greatly involved. They are, however, organically unique. Elsewhere the blood vessels are encased in soft, yielding tissues, subject directly to the atmospheric pressure. The volume of a limb may vary considerably, and its outline is constantly undergoing variations, both as to contour and environmental influences; but the skull case is fixed, unyielding and invariable. It is true that there are openings into it, to transmit soft tissues (vessels and nerves) but these are altogether inconspicuous in size, as compared with the entire area of the skull surface; and their lumen is completely filled with tissues, which, though slightly yielding, are constantly under considerable pressure; so that, for all practical purposes, we may safely disregard them, and speak of the skull as a perfectly inelastic encasement.

It need hardly be mentioned that the cavity of the spinal column forms a simple continuation of that of the skull, and that both are subject to the same conditions. In proportion to its size, the spinal canal has more openings in its bony casement than has the cranial cavity, but these are filled with very tough, inelastic, fibrous matter, and, in most positions of the body, subjected to increased pressure. It can hardly fail to be apparent, therefore, that a force sufficient to distend them, if applied to the brain, could not well be borne by the delicate cerebral tissues. Nor, indeed, could such a force be supplied by the tenuous cerebral arteries. We are thus forced to accept as one of the conditions of our problem, the practical inelasticity of the walls of the entire cavity in which lies the cerebro-spinal nervous mechanism.

Throughout the cavity, there must be a constant tendency to equalization of pressure, subject only to variations due to gravitation; and it is evident that the same fundamental physiological conditions must pertain to both encephalic and spinal circulations; but for convenience we shall confine our attention to the former.

Given our closed cranial cavity, then, what are its contents?

Generally speaking, these may be referred to as semi-solids and liquids. Free gases do not occur in the living brain, and solids are inconspicuous. The protoplasm which makes up the mass of the brain, is itself really a liquid, but a mass of fibrous tissue gives it comparative stability, and we may conveniently refer to it as the semi-solid portion of the encephalon.

The liquids present are lymph, a clear serum, and the blood; the two former being, of course, derivatives of the latter. The bulk of the brain tissue is far too inelastic to admit of absolute condensation under slight pressure; and molecular changes cannot be sufficiently rapid to essentially alter its amount momentarily. We are therefore justified in predicating comparative constancy of size of the semi-solid portion of the encephalon. From this it follows, that the absolute amount of liquid in the cranial cavity must also be a constant. If, then, there is to be a change in the aggregate amount of blood supplied to the brain, there must be a compensatory fluctuation of the complementary fluids, the serum and lymph.

Such changes undoubtedly occur, and they furnish some of the most important problems connected with cerebral dynamics. How are they to be explained? Certain old time writers said that the serum was pressed down into the spinal canal when the blood supply to the brain increased, and returned when it diminished; but it does not appear as to what they assumed to be done with the liquid which already filled this cavity. Some more recent writers have explained that the fluid of the sub-arachnoidean space is simply transferred to the ventricles when the blood increases; but they also fail to mention the disposition made of the ventricular fluid already inconveniently present. Such explanations as these, occurring in important and authoritative works, prove that the subject is widely misunderstood. The difficulty has resulted from carelessness in examining the existing physical conditions. It is only necessary to call attention to these, to prove that any absolute increase of blood supply can be explained in no other way than by supposing a corresponding diminution in the quantity of serum or of lymph present in the entire cerebro-spinal cavity. If a cubic centimetre of blood is to be added to the quantity already circulating within the cranium, a cubic centimetre of serum or lymph, must be altogether removed from the encephalon. This fact being self-evident, it remains only to explain the process by which this removal is brought about.

Only two possible channels present themselves: the lymphatic

system and the vascular. The peri-vascular and sub-arachnoidean spaces of the brain are in connection with the lymphatics of the pia; and it has been experimentally demonstrated (Golgi) that an increase in intra cranial blood pressure, hastens the flow of lymph through the thoracic duct. Some authorities (e. g., Rosenthal) suppose this change sufficient to account for all congestive conditions of the brain; but it seems to me highly improbable that even the greatest possible acceleration of the flow in these exceedingly small channels could account for the rather rapid cerebral congestion which every one admits to occur. All rapid and general hyperæmias of the encephalon—and it seems to me most minor ones, also—can best be explained by calling into account a rapid osmotic action through the tenuous walls of the encephalic arterioles and capillaries. These must absorb and sweep altogether out of the cranium a quantity of serum equal in bulk to the blood that is being added, less the (as I believe inconspicuous) portion carried off by the lymphatics. Of course at the moment when the absorption takes place the serum so taken up becomes a portion of the blood. It has simply percolated through an arterial wall, and while the vessel is dilated, its lumen contains no more corpuscles than before; but the next instant the excess of serum has been swept out of the brain, and its place is taken by corpuscle-bearing blood. In reality the process takes place somewhat gradually,—though probably far more rapidly than has usually been assumed,—but the result is as noted. But whatever may be the difference of opinion as to the relative share of lymph acceleration and direct osmosis in the congestive conditions of the brain, there is no opportunity for diversity of opinion as to what must take place when the blood supply of the brain is lessened. Since lymph and serum are both blood derivatives, it is clearly impossible for either to reach the brain except as exuded from the blood. And such exudation must take place, compensatorily, with every general arterial contraction in the brain,—that is, whenever the blood supply is lessened.

Thus and not otherwise, can be explained absolute changes in the encephalic blood supply. How beautifully adapted the structure is for such changes, a consideration of the elaborate system of peri-vascular spaces, and of the contact of the vascular pia mater with the sub-arachnoidean space (itself only a larger peri-vascular cavity) will at once make manifest. Incidentally, it may be noted how marvelously the delicate cerebral tissues are thus protected against very sudden changes in the circulation; the serum not

only cushioning the cells everywhere, but by an oscillatory osmosis tending constantly to equalize the pressure in the brain, which otherwise must vary much more suddenly with changes in the heart beat. The extreme tenuity of the cerebral vessels permits of very rapid osmosis, though it cannot be supposed that a change here is ever instantaneous. Some results of these changes will appear a little later.

It must not be supposed, however, that circulatory changes in the brain are confined to absolute increase and diminution of the blood. On the contrary, fluctuations within the cranium, between different parts of the vascular apparatus, are constantly occurring. These fluctuations are of two kinds,—arteric-venous and inter-arterial. In the brain, as elsewhere, the veins are merely passive return channels; and the sinuses are, in effect, only larger veins. Gowers has called attention to the anomalous course of the veins in the encephalon, by reason of which the current of blood is in most positions of the body, upward through the veins to the sinuses, over almost the entire cortical surface. The equilibration of forces in the skull, however, and the fact that gravitation makes the pressure greatest at the base of the brain, may help to overcome this seeming disadvantage.

Arterio-venous fluctuations have been chiefly thought of in connection with pathological conditions, but it can scarcely be doubted that they operate efficiently and constantly in physiological states. For example, an increased arterial pressure may tend to dilate the cerebral arteries at a time when conditions are not favorable to absorption of the peri-vascular fluid, or more rapidly that such absorption can occur. In such a case, the increased intra-cranial pressure must hasten the flow of venous blood, (aside from the increase of the *vis a tergo*, be it understood), by compressing the veins in a measure, thus permitting arterial dilatation independent of peri-vascular absorption. To a certain extent this must always occur under such conditions, and the more rapid general changes in arterial capacity are doubtless thus explicable; but it will be noted, of course, that the absolute quantity of blood, arterial and venous, in the encephalon, is not thereby altered. Conversely, sudden contractions of the arterioles may tend to decrease the general extra-vascular pressure in the brain, hastening at the same time the capillary circulation, and dilating and flooding the veins; the entire process being simply the reverse of the one just noted. In diseased states, either condition may be somewhat permanent. A passive (venous) congestion, indeed, may cause a true arterial anæmia, while yet

there is sufficient blood in the brain. The opposite condition—that of venous deficiency—might co-exist with arterial hyperæmia, but only in case of a static form of congestion. In ordinary hyperæmia, the turgid arterial channels demand full venous outlet, and the peri-vascular spaces and the lymph channels are probably infringed upon, rather than the veins. Constant variations of this arterio-venous interplay are unquestionably occurring in the normal brain; and exaggerated changes of the same nature, in abnormal states.

Supplementing the three methods of variation just referred to, and always more or less intimately associated with them, is the fourth method of change,—the inter-arterial fluctuation. Probably all these methods of variation are usually in operation together in any given portion of the brain, one or another predominating. Bearing this in mind we will briefly consider this inter-arterial oscillation by itself, as we have done with each of the others. It is made possible by the anatomical arrangement of the cerebral vessels. These, as is well known, are terminal,—that is, each artery has its own set of capillaries and veins, and does not anastomose freely with other systems. If an embolus fills the lumen of the posterior cerebral artery, for example, a tolerably distinct area of degeneration occurs in the occipital and temporo-sphenoidal lobes. In most other tissues of the body, anastomosing arteries would soon supply the deficiency; but not so here. And in lesser twigs it is the same, even to the little looplets each one of which supplies only a microscopic area of the cortex. This isolation however, is not absolute, and it varies in degree in different brains,—variations, as will be noted later, that may explain some differences in the workings of divers minds.

Let us see now, tangibly, what results from this terminal arrangement. Suppose that the cortical area, supplied by the anterior cerebral artery has been in active operation and correspondingly hyperæmic, but that it becomes desirable to utilize the area supplied by the middle cerebral instead; while at the same time, no general change in the amount of blood supplied is feasible. It will be readily seen that an arterial vaso-governing apparatus might concomitantly contract the anterior cerebral and dilate the middle cerebral, the latter thus receiving the surplus blood that is shut out from the former, while the aggregate amount of blood supplied to the two remains unchanged, as also the peri-vascular fluid, provided only that the tissues between the two arteries were sufficiently plastic to admit of the necessary displacement. That

such is really the case, a consideration of the plasticity of the tissue making up the brain, leaves no occasion to doubt.

While, to make the illustration clear, we have utilized two of the larger arteries of the brain, it is plain that lesser twigs will much more frequently be called into requisition; indeed, we may reasonably suppose that inter-arterial fluctuations between the twiglets of the cortex are constantly occurring, coincidently with the shifting currents of thought which they help to evolve. Such intimate changes, more particularly called into requisition in connection with the glimmering oscillations of constant thought, involving the cells of a particular area of the cortex—in all parts of which circumscribed area there is intense hyperæmia and, for the time being, almost complete obliteration of the peri-vascular spaces—may be supposed to take place much more rapidly than can occur the general changes dependent upon osmosis. Yet even here, instantaneous changes are not to be admitted; and "flashes of thought" must be explained with the aid of molecular dynamics.

The four processes above considered—vasculo-lymphatic, arterio-serous, arterio-venous, and inter-arterial fluctuations—afford a synoptical view of the possible methods of change in the encephalic circulation. We have next to inquire as to the means by which changes in the circulation are brought about. The importance of these changes being admitted, it seems highly probable that some central mechanism has charge of the co-ordination of the encephalic vascular apparatus. Naturally, we look to the vaso-motor nerves for a chief share in this co-ordination. Indeed, we can think of no active arterial contraction in which the vaso-motor ganglia are not involved. Centres of vaso-constriction lie in the cervical sympathetic ganglia. Another centre lies in the medulla, and perhaps still others in the cerebral cortex. I have heretofore expressed my belief that the medullary centre is vaso-inhibitory rather than vaso-motor. Morphological consistency demands that the cortical centre be considered inhibitory of the medullary centre; but this theoretical consideration is as yet neither justified nor discountenanced by observed phenomena. It becomes an important question, however, as to just how much we shall attribute to these centres. Their response to certain abdominal impulses is undoubted. It may reasonably enough be assumed that they respond also (and this may be their chief function) to impulses from the brain itself; as, for example, when that organ is in need of rest. But the important thing to be noted in connection with either kind of action, is that it is always purely reflex, that is to say, it

is in response to an impulse from without the centre; and, further, that it is an unconscious reflex, entirely outside the power of direct volitional control. These centres, then, which govern one of the most important processes of the entire organism—a process having to do not with physical things alone but with the evolution of mind itself,—centres of such transcendent importance as these are purely automatic in their action. To those who have learned to look upon every mental manifestation as a true reflex, this will seem only the natural order of things; to others it should prove a significant and suggestive observation.

But these central stations of vaso-control can hardly be thought of as acting with any great degree of localized discrimination. Their location precludes the belief that they should be able to manage the entire affairs of so complex a mechanism as the cerebral vascular apparatus. The intricate and delicate oscillations of blood now here, now there, changing at times perhaps over microscopic areas, yet potent in results, we cannot well believe to be governed altogether by a few sympathetic ganglia, nor yet by the medullary centre. Where then shall we look for their seat of control? Surely not elsewhere than in the walls of the vessels themselves, and in their intrinsic ganglia. Just as the ganglia of the heart influence the action of that organ, so the entirely comparable ganglia of the arterial walls must act, each on its own particular set of fibres, to control the local changes in the arterioles. The stimulus to action here must lie, not in the arteries themselves so much as in the chemism of the protoplasm about them,—the innervating of the cells which are the essential cerebral elements. A consideration of the exact nature and effect of this innervation belongs to the subject of molecular dynamics, and will be taken up at another time. Suffice it here, that it is quite as conspicuously reflex as is the arterial contraction itself.

So much for the arterial changes directly due to nervous action of the controlling ganglia, extrinsic and intrinsic. All changes actively involving the vascular apparatus must begin with these ganglia, or be reflected through them; but there are numerous ulterior influences that are important as complicating their action. The most prominent of these are dependent upon the heart. A weak or insufficient heart may by altering the cerebral circulation, change what would otherwise be a powerful mind to one of lassitude and inapplication. Contrariwise, a powerful heart tends to give the brain opportunity to innervate with its utmost vigor. The authors, whoever they may have been, of the figurative

expressions "strong of heart" and "faint hearted," as descriptive of opposite mental traits, expressed probably far better than they knew, a casual relation between the physical and the mental. It is probably not going too far to assert that a fairly good heart is essential to anything like normal cerebral circulation; and it certainly is reasonably predicable that an equable condition of the circulation is absolutely necessary to the best mental action. A too weak heart sends insufficient blood to the brain, and the result is either venous stasis and congestion or serous exudation; and in either case, imperfect innervating of the cortex. A too strong heart, on the other hand, while less markedly disadvantageous, may send an excess of blood and cause an exhaustive over-action. But between the strictly normal heart and the cerebral circulation, an equally close and intimate relation exists. So far as we know, all arterial dilatation is passive; that is, due to pressure from within. The calibre of a cerebral vessel is determined by the point of equilibrium between the general brain pressure plus the tone of the artery itself, acting in one direction; and the blood pressure within, acting in the opposite direction. Both of these are varying factors. The arterial tone, changing with the ganglionic innervation, we have already considered. The internal tension undoubtedly depends upon the general blood pressure without the cranium; and this, of course, largely upon the heart. Any increased action of the heart, therefore, tends to dilate the cerebral vessels. We have already seen that the pressure outside of the cerebral vessels prevents anything like the free and rapid dilatation that occurs in the systemic arteries at large. But we have also noted that a slight oscillation is presumably always in operation; and it is exceedingly probable that violent action of the heart may at times result in positive hyperæmia of the brain. A constant interchange of forces thus is taking place between the heart and the cerebral vessels, and it is superlatively interesting to consider the beautiful mechanism by which the same ganglionic and medullary centres preside over both, admitting thus of a marvelous co-ordination. The same impulse thus, which, coming from the cervical ganglia, accelerates the heart beat, may stimulate a contraction of the cerebral vessels to meet the shock; and a medullary impulse, inhibiting the cardiac action, inhibits also, through the cervical ganglia, the power of the cerebral vessels; thus as before, maintaining that equilibrium which is an essential concomitant of equable thought. Thus here, as so often elsewhere in the animal body, is seen, a beautiful reciprocal adjustment,—of

which indeed the organism as a whole is merely a greater manifestation.

Another influence having a not unimportant bearing upon the cerebral circulation is that resulting from changes in bodily position. This, however, is not as conspicuous as might at first thought appear, because of the comparative fixity insured by the unique conditions already discussed. Were the brain surrounded only by yielding tissues, the greatest and most studied care would be necessary in all our motions, lest there be produced so marked a change in the cerebral circulation as to seriously injure the encephalic tissue. An amount of vascular alteration equal to that which occurs in the hand whenever that member is simply dropped to the side after resting horizontally, would, if it occurred in the brain, produce the most profound mental aberration, or an absolute obliteration of consciousness. But no such marked change occurs with slight or temporary alterations of the position of the cephalon. True, a man inverted could not think well; but it is questionable whether the discomfort that results from lowering the head does not originate more in the superficial vessels of the face than in the vessels within the skull. At any rate, between the horizontal and erect postures, there is no such conspicuous change in the encephalic circulation as there is in the hand or foot. But while these observations go to show that momentary changes in position are comparatively without effect upon the cerebral circulation, it is none the less true that positions of the body are gradually effectual in producing changes here as elsewhere. A consideration of some of these affords interesting clues to certain normal attitudes. For example, it is undoubtedly true that meditation —calm, unimpassioned thought—is best carried on while the head is inclined forward. Now such an inclination of the head must, as a moment's consideration will prove to any anatomist, relax the longitudinal tension of the carotids (and indirectly their lateral tension also) thus permitting a more equable flow of blood into the cerebral vessels. On the other hand, proud, haughty feelings accompany elevated positions of the head; positions necessitating increased carotid tension and a more impulsive circulation. And so of other states. Now it would be absurd to think that the effect of these changes is sufficient in itself to produce the mental change from meditation to haughtiness,—the fact that the positions may be used interchangeably would sufficiently disprove such a supposition,—but it cannot be questioned that in the long process of evolution, these conditions may have been efficient in

bringing about and stamping upon the race the attitudes which we now recognize as in a measure indicative of certain mental states, such as those just mentioned.

But the effect of mere changes of the head itself are at most but slight; and probably more depends upon the position of other members,—as, for example the lower extremities. Many persons with rather feeble hearts find that they can think best when the lower limbs are slightly elevated or placed horizontally. The aid thus given the heart by gravitation is very considerable and must indubitably affect the brain also. Probably thus rather than through direct influence upon the cerebral arteries, is to be explained the fact, if fact it be, that some feeble persons think best in the recumbent position. There are people, again, who think best while walking; and in this connection the aid thus given to circulation, through muscular contraction must not be overlooked, though we shall find another explanation possible for this habit later on. The effect of rapid exercise in producing so turbulent a blood current as to preclude the possibility of equable thought, needs only to be referred to, finding manifest corroborations in universal experience.

Other subordinate but not inconsequential influences are brought to bear upon the cerebral circulation indirectly through changes in the digestive apparatus. During digestion the cœliac system is of course greatly dilated, and such dilatation results in a decrease of pressure at the aortic opening of carotid and innominate arteries, thus reducing the rapidity of circulation in the brain. It does not follow here of necessity that the amount of blood in the brain at any given instant is reduced; but the aggregate amount that passes through it in a given time is much lessened. Such a condition is made possible by the intimate connection of the splanchnic and cerebral circulation; the impulses that relax the cœliac vessels relaxing the cerebrals also, and thus decreasing the entire pressure in the brain without necessitating arterial constriction. If this central influence is not efficient, however, the pressure being lessened in the arteries and the tone of the arterial walls remaining unchanged, the cerebral vessels must contract and receive less blood. In either case the amount of oxygen that comes to the brain is reduced; and in the latter case the supply of serum pabulum is greatly increased. Hence there is a tendency to sleep after eating,—a tendency that becomes almost irresistible when food has been taken to the extent of satiety. This drowsiness, however, must be at least in part explained by the presence in the

blood during digestion of an excess of the nitrogenous food pabulum, encouraging constructive metabolism in the brain cells; in contradistinction to the destructive metamorphosis set up by the oxygen, and which latter alone has a distinctly conscious mental equivalent.

Variations in external temperature, altering the size of the peripheral vessels, must indirectly affect the cerebral circulation in a way too manifest to require elucidation. Prolonged exposure to extremes of temperature produces conspicuous mental effects; but while it does so in a measure through the circulatory apparatus, there is introduced also a nervous element that cannot be considered here.

Without further elaboration of the conditions effecting the cerebral circulation, those already instanced sufficiently illustrate the exceedingly varied and complex character of the influences under which cerebral actions are carried on, and evidence perspicuously the necessity for that unique cranial apparatus by means of which comparative stability and equability of the encephalic circulation are made possible. Such equability, moreover, is absolutely essential to the functioning of these exquisitely sensitive tissues. Elsewhere, marked temporary changes of circulation are productive of only trifling ill effects. Compress a brachial or femoral artery so as to completely stop the circulation in the corresponding member; or apply an Esmarch's bandage, almost completely depleting the tissues for a minute or an hour; and there is no permanent ill effect. But compress the carotids for a second—consciousness is gone: continue the pressure for a minute—life itself is extinct. Such a tissue as that may well be jealously guarded. Jealously guarded indeed it is, as we have seen; and equally well is its circulatory supply provided for. Indeed its vascular supply is out of all proportion to its size,—though quite in keeping with its functional importance in the organism. The average brain represents only about two per cent of the body weight, yet it receives about ten per cent of the blood, or five times its *pro rata* share, so to speak; that is to say, while each pound of the other tissues of the body, on an average, transmits about one and a half ounces of blood, while the entire bulk of blood is passing once through the heart; each pound of brain tissue receives an amount of blood equal to half its own weight. In other words, about one and a half pounds of blood pass through the brain during a single complete circuit. But this disproportion is rendered still more striking if we remember that in the brain itself the blood is not evenly distributed, the gray cor-

tical matter being far more vascular than the remainder of the cerebral substance. If those estimates which make the cortical supply ten times that of the centrum be even approximately correct, it is evident that the amount of blood supplied the most active part of the brain is relatively enormous,—so immensely out of proportion, indeed, to that supplied any other tissue, that I hesitate to make a computation, lest it seem absurd. But though we desist from this particular line of calculation, another startling computation is necessary, in order that we may get clearly in mind the striking anomalies of the cerebral circulation. We have estimated that during a complete circuit of the blood, the brain receives about twenty-four ounces. But the average capacity of the encephalic vessels is said to be only about four ounces*; therefore the blood must pass through them at about six times its average rate of speed. This is supposing an equal distribution throughout the encephalon; but as regards the restricted area of the cortex, we will merely suggest an enormous acceleration and, as before, desist from computation. These startling intrinsic circulatory anomalies sufficiently prove—were further proof needed—the importance of the blood supply to the functionings of the central nervous apparatus; and at the same time they furnish, perhaps more perspicuously than could otherwise be done, evidence as to the marvelous play of forces that is going on in the encephalon,—the tremendous energizing, and the exceedingly rapid organic metabolisms which accompany mental manifestations. Not for one moment can that sweeping current of fiery blood be spared with safety to the organism; and it is well that the forces which control that circulation are placed far beyond reach of a capricious consciousness.

Having now seen something of the conditions under which the encephalic circulation is carried on, and having gotten an idea of the importance of this circulation, we have next to inquire as to the means of investigation that may be used in gaining an insight into the true relation between such changes and various mental states. The encephalic vessels being securely hidden from direct observation, it has been necessary to press into service all possible means of observation in order to arrive at reasonably certain inferences,—for at best our knowledge here is largely inferential. As some of these means of observation are constantly being utilized in actual practice by every physician, it may not be amiss to glance at them

* I accept this estimate on authority. The other computations are based exclusively upon measurements and estimates of my own.

here with especial reference to the value of the data they afford and hence, incidentally, to their reliability as aids to diagnosis.

One of the commonest observations,—and one let it be noted, that furnishes in itself the basis for a whole series of deductions—may be made at any time on the head of an infant; in which the fontanelles may be seen to be depressed during sleep and elevated during waking hours, becoming especially prominent during violent emotional states. These observations are perfectly unequivocal and demonstrative as far as they go; and they need no further comment here.

In the adult, very few methods of observation are so satisfactory. One of the commonest criteria of which cognizance is taken clinically is the condition of the pupils. The radiating fibres of the irides being supplied by the sympathetic nerve, it is assumed, with some reason, that a dilated pupil must coincide with arterial contraction in the brain, and *vice versa*. Notwithstanding certain theoretical considerations that favor this view, it must be insisted that the symptom is by no means universally reliable. External conditions operate so constantly upon the normal pupil that its fluctuations cannot be at all relied upon as indicative of transitory conditions in the brain. But with conspicuous aberrations of long standing and of central (sympathetic) origin, the pupil is apt to coincide. That persistent anæmia of the brain accompanying certain forms of melancholia, for example, is pretty constantly associated with a tolerably fixed and relatively immobile dilatation of the pupils, is reasonably established. Witness also the contracted pupil of paresis.

Another set of symptoms very widely accredited with diagnostic value, has reference to the vascular supply of the face. The vessels here being supplied with vaso-motor nerves from the same source as the encephalon (*i. e.*, from the cervical sympathetic), it would naturally be assumed that the circulations in the two must be parallel. But experiment has demonstrated that sometimes a single stimulus supplied to the cerebral sympathetic will produce opposite effects upon the facial arteries and those supplied to the ear (and brain also, presumably); and the conclusion based upon this observation is abundantly upheld by other considerations. The facts seem to be that the two circulations, facial and encephalic, do often—perhaps usually—coincide in a measure; but that they are at other times complementary. And the two conditions are fairly well differentiated ætiologically. When the impulses causing a change in the cerebral circulation comes as the reflex of a cerebral appeal, or as a direct stimulus from the vaso-controlling

centres, the effect is quite likely to be confined to the brain itself, and the facial circulation may be compensatorily altered in the opposite direction. For example, if we notice a student undertaking some difficult problem in a composed and equable but concentrated way, we shall find that his face becomes pale; yet it cannot be doubted that at the same time his brain is hyperæmic, at least in portions of its cortex. A person who becomes white with anger affords another illustration of the same kind. That anger is often accompanied by flushing of the face, is because the heart usually begins to beat tumultuously; and this is especially true when anger is accompanied by active muscular exertion, aggressive or defensive; in which case the face which was blanched while the rage was suppressed becomes almost instantly turgid.

But on the other hand, circulatory changes due to more general causes, such as constitutional dyscrasiæ, changes in heart beat, and any other causes affecting the pressure at the carotid openings, naturally affect both facial and cerebral circulations in like manner. Thus a general plethora is manifested by a flushed face and an equally flushed brain (witness here the tendency to cerebral hæmorrhage); and a persistent anæmia of the body is almost certain to be accompanied by an anæmic brain, as well as by a pale face. Of more transitory conditions in which there is coincidence, the flushed excited anger, already instanced, is an illustration, and there may in addition be cited: terror, which operates in exactly the opposite manner, primarily by blanching brain, but then by blanching the face also, through an inhibitory effect on the heart's action; the general cephalic flushes that results from vigorous exercise, in which the face also is flushed; and in general, as already intimated, nearly all conditions that operate primarily through the blood current rather than through the nervous mechanism. The diagnostic importance of this ætiological distinction cannot be too strongly insisted upon.

Another avenue of observation giving certain clues to the cerebral circulation is afforded by the eyes. Time out of mind the eyes have been referred to as the windows of the soul; but modern ophthalmoscopy has taken this concept from the domain of poetry by rendering the eyes literal windows, if not to soul, at least to brain and the blood currents that move within it. But we must not expect too much from the ophthalmoscope in this capacity, for at best it must be remembered, the retinæ are only outer corridors of the mind-storing mechanism, not portions of the main structure itself. Furthermore our technique in the manipulation of the

instrument is by no means perfect; and it is doubted by the best ophthalmologists whether we can by examination of the retina make out a simple congestion of that tissue. To minor and transitory changes in the cerebral circulation, it thus affords no clue. But chronic degenerative changes, inflammations and gross lesions in the brain often leave a record in the retina; and these records are of great diagnostic importance. In attempting to draw conclusions from mere vascular conditions of the retina, however, it should not be overlooked that the mydriatics often necessarily called into requisition, may affect the condition of the retinal circulation.

Other sources of information as to the condition of the cerebral circulation, which need only be mentioned here, are observations of the carotid pulse; and the still more indirect inferences from objective study of the effects of drugs having vasomotor influence on the organism. But the latter must be used very guardedly, and only as corroborative evidence; for we know little of any drug having a specific localized effect upon the cerebral vessels alone. Most drugs that effect the cerebral circulation at all, act so markedly on the splanchnic system also as to greatly vitiate the evidence otherwise derivable from their effects. Of those producing somewhat unequivocal symptoms, alcohol is perhaps the most conspicuous.

But after all other methods of investigation have been exhausted, often with a meagre and unsatisfactory result, we are sometimes permitted, as a last resort, to turn to that tribunal to which the pathologist must so often refer as the court of final appeal,—a post mortem examination. It is contended by some excellent authorities, however, that even here we have no possibility of securing unequivocal data; such persons maintaining that post mortem changes markedly alter the vascular condition of the encephalic tissues. My own observations however, extending over a considerable number of cases (including the careful study of the brains of about one hundred and fifty insane subjects, in which vascular aberrations are almost always conspicuous,) lead me to place great confidence in the post mortem appearances of the encephalon, even though the examination be not made for several hours after death. Theoretical considerations, furthermore, seem to me to warrant such a position. The encephalon lies in a closed cavity no less after death than before. Anything that is taken from it must therefore be replaced by an equal bulk of matter. Obviously the

circulatory apparatus affords the only channel for alteration. At the moment when the heart stops beating, the blood probably becomes almost static in the brain. A slight further propulsion into the capillaries and veins of arterial blood doubtless occurs; but it is equally certain that it is only a slight displacement, for nothing is more common than to find even the largest cerebral arteries filled with blood when examined post mortem. Of course all circulation of the blood anywhere is only a manifestation of an attempt at equilibrium of pressure; and the amount of change that occurs after death merely represents the difference in pressure existing between arteries and veins. In the body at large, such is the superior elasticity and contractile power of the arteries that they empty themselves almost entirely after death, driving the blood into the capillaries and the veins. But in the closed skull the conditions much more closely approximate equilibrium, and the veins, even if only partially full, are not readily distensible, owing to the pressure about them. Equilibrium therefore usually results while the arteries are at least approximately as in life. But the question now becomes: Are these conditions permanent? Some authorities maintain not; but a theoretical consideration of the subject may help us to a decision, since observers differ. In the first place, nothing can get out of the skull except by the vascular channels. No changes occur in these elsewhere in the body, except a general settling of the blood, from the time when equilibrium is established until decomposition sets in. When this occurs, it is supposable that gases may form and force a portion of the blood out of the sinuses or veins, if it be not coagulated; but this will hardly take place until general post mortem changes have occurred to such an extent as to make all observations unreliable. As regards settling of blood in the encephalon, it is evident that the isolation of the arteries in terminal loops precludes the possibility of anything like the general hypostasis that occurs elsewhere in the body, even were the cavity not a closed one. Theoretically, then, we would expect to find for several hours after death (and until decomposition sets in) a condition of the encephalic vessels fairly representative of their ante-mortem condition. And practically, in my own opinion, this is exactly what we do find in the great majority of instances. Indeed, in cases of acute insanity, where the symptoms during life have been characteristic and marked, it is possible to predict with much confidence the condition that an autopsy will reveal. And such observations, checking unequivocally the symptoms noted

instrument is by no means perfect; and it is doubted by the best ophthalmologists whether we can by examination of the retina make out a simple congestion of that tissue. To minor and transitory changes in the cerebral circulation, it thus affords no clue. But chronic degenerative changes, inflammations and gross lesions in the brain often leave a record in the retina; and these records are of great diagnostic importance. In attempting to draw conclusions from mere vascular conditions of the retina, however, it should not be overlooked that the mydriatics often necessarily called into requisition, may affect the condition of the retinal circulation.

Other sources of information as to the condition of the cerebral circulation, which need only be mentioned here, are observations of the carotid pulse; and the still more indirect inferences from objective study of the effects of drugs having vasomotor influence on the organism. But the latter must be used very guardedly, and only as corroborative evidence; for we know little of any drug having a specific localized effect upon the cerebral vessels alone. Most drugs that effect the cerebral circulation at all, act so markedly on the splanchnic system also as to greatly vitiate the evidence otherwise derivable from their effects. Of those producing somewhat unequivocal symptoms, alcohol is perhaps the most conspicuous.

But after all other methods of investigation have been exhausted, often with a meagre and unsatisfactory result, we are sometimes permitted, as a last resort, to turn to that tribunal to which the pathologist must so often refer as the court of final appeal,—a post mortem examination. It is contended by some excellent authorities, however, that even here we have no possibility of securing unequivocal data; such persons maintaining that post mortem changes markedly alter the vascular condition of the encephalic tissues. My own observations however, extending over a considerable number of cases (including the careful study of the brains of about one hundred and fifty insane subjects, in which vascular aberrations are almost always conspicuous,) lead me to place great confidence in the post mortem appearances of the encephalon, even though the examination be not made for several hours after death. Theoretical considerations, furthermore, seem to me to warrant such a position. The encephalon lies in a closed cavity no less after death than before. Anything that is taken from it must therefore be replaced by an equal bulk of matter. Obviously the

circulatory apparatus affords the only channel for alteration. At the moment when the heart stops beating, the blood probably becomes almost static in the brain. A slight further propulsion into the capillaries and veins of arterial blood doubtless occurs; but it is equally certain that it is only a slight displacement, for nothing is more common than to find even the largest cerebral arteries filled with blood when examined post mortem. Of course all circulation of the blood anywhere is only a manifestation of an attempt at equilibrium of pressure; and the amount of change that occurs after death merely represents the difference in pressure existing between arteries and veins. In the body at large, such is the superior elasticity and contractile power of the arteries that they empty themselves almost entirely after death, driving the blood into the capillaries and the veins. But in the closed skull the conditions much more closely approximate equilibrium, and the veins, even if only partially full, are not readily distensible, owing to the pressure about them. Equilibrium therefore usually results while the arteries are at least approximately as in life. But the question now becomes: Are these conditions permanent? Some authorities maintain not; but a theoretical consideration of the subject may help us to a decision, since observers differ. In the first place, nothing can get out of the skull except by the vascular channels. No changes occur in these elsewhere in the body, except a general settling of the blood, from the time when equilibrium is established until decomposition sets in. When this occurs, it is supposable that gases may form and force a portion of the blood out of the sinuses or veins, if it be not coagulated; but this will hardly take place until general post mortem changes have occurred to such an extent as to make all observations unreliable. As regards settling of blood in the encephalon, it is evident that the isolation of the arteries in terminal loops precludes the possibility of anything like the general hypostasis that occurs elsewhere in the body, even were the cavity not a closed one. Theoretically, then, we would expect to find for several hours after death (and until decomposition sets in) a condition of the encephalic vessels fairly representative of their ante-mortem condition. And practically, in my own opinion, this is exactly what we do find in the great majority of instances. Indeed, in cases of acute insanity, where the symptoms during life have been characteristic and marked, it is possible to predict with much confidence the condition that an autopsy will reveal. And such observations, checking unequivocally the symptoms noted

during life, furnish the final test which converts our otherwise doubtful inference into a reasonably definite and certain element of scientific knowledge.

We turn now to the obverse aspect of the phenomena that have been briefly discussed,—to a consideration of the mental equivalents of changes in the encephalic circulation. Throughout the preceding pages, indeed, there have been repeated tacit assumptions as to the general effects of alterations in the blood supply; but these have been introduced unavoidably and with no specific intent. Now, however, we shall make a practical application of the data already gathered; or rather shall attempt to correlate these with the subjective data furnished by psychological studies. In considering the mental concomitants of vascular fluctuations, no attempt will here be made to go back of the coincidence immediately involved; an attempt at closer analysis being postponed till we have studied into the molecular dynamics of the encephalic tissues, when we shall hope to return to a fuller discussion of the conditions here outlined, and to a more comprehensive study of the physical processes underlying abnormal mental states.

Changes in circulation affect the tissues chemically in two distinct ways: they alter the recuperative process by changing the amount of food supplied to the brain tissues; and they alter the destructive metamorphoses by bringing more or less oxygen to the encephalic cells. These processes may be said to be of equal importance, inasmuch as each is absolutely essential to the life of the organism; but variations in oxygenation produce the most striking results, since consciousness is the direct accompaniment of the destructive metamorphoses of the brain cell, while the constructive metabolism is carried on independently of the *ego*,—being indeed the time for sleeping of the individual cell. This unconscious recuperative process is at all times going on in some portions of the cortex, and could it be made to balance the destructive process momentarily, there would be no necessity for the time of general cortical rest known as sleep. But the oxygenation goes on with such extreme rapidity during waking hours that an organic necessity arises from time to time for a partial withdrawal of the oxygen, that the recuperative process may be made to balance the destructive, or to approximately balance it (exceeding it by a little during adolescence, and lacking a little of equalling it during senescence). Here again we are making an assumption as to the specific effect of the increase in circulation on the cerebral tissues. Once for all, it may

be said that all methods of investigation unite to prove, what might have been maintained *a priori* as a biological axiom independent of proof,—namely, that increase of oxygen-bearing blood accompanies increase of destructive metamorphoses of the cerebral tissues; and decrease of the oxygen supply is accompanied by increase of serum, bearing the nitrogenous products that enter into the constructive metamorphosis of the tissues. And since the destructive metamorphosis finds its mental equivalent in conscious states, this assertion is equivalent to saying that the amount of blood supplied the encephalon bears a direct relation to the extent and intensity of the manifestation of mentality,—to what might be styled the momentum of the *ego*. By which it is implied that consciousness is not a single equable status of the organism; neither is it so, any more than sleep or life itself. But of this more at another time. Meanwhile if we do not forget these base lines, we shall scarcely go astray in the concise correlations of physical phenomena to mental states which are about to be suggested.

But aside from the chemical effects wrought by the circulation there is the purely mechanical effect of intra-cranial pressure constantly in operation and constantly varying with alteration of the blood supply; and this must be of salient importance in its influence upon intellection, inasmuch as very decided changes produce the most startling alterations to which the mind is subject,—nothing less than an obliteration of consciousness itself. This result, moreover, is produced either by a great increase or a great decrease of intra-cranial pressure. At first sight, this seeming similarity of the effects of opposite causes appears paradoxical, and might lead to a question as to the validity of our symptomatological knowledge as bearing upon conditions of the brain.

But it must be remembered that extreme changes in environmental forces everywhere effect the organism in seemingly identical manner when carried to the extent of absolute noxiousness. For example, extreme application of heat and the extreme withdrawal of heat from the tissues produce symptoms that are scarcely to be discriminated; yet heat and cold when applied within physiological limits are productive of very different conditions. And so of pressure in the cranium: moderate increase or decrease producing characteristic mental symptoms extreme increase or decrease resulting in opposite abnormal states of such intensity that, in one direction or the other as the case may be, the border lines of consciousness are crossed. The specific effects of changes

of pressure within these limits will be considered in a subsequent paper. The present suggestions will take cognizance only of the general results of vascular fluctuations, without very specifically outlining the portions of the result due to pressure and those due to changes in oxygenation or nitrization of the tissues,—three influences that act always in unison in the encephalon.

For the purposes of this brief synopsis we shall perhaps do best to follow somewhat the same order that we took up in considering the anatomical classes of possible change. Of course true isolation is not possible anywhere in psychology, all classifications being arbitrary; but for purposes of analysis and explanation we may speak of the mental processes as isolated, just as we did of the somatic processes. Considering first, then, the changes accompanying arterio-serous fluctuations, we find implicated some of the most conspicuous phenomena of mind. At tolerably regular intervals, varying with habit and surroundings, there come to every individual times when the entire arterial system of the cerebrum receives from the vaso-motor centres stronger impulses, which stimulate its walls to assume an increased tone. Immediately the equilibrium between blood and surroundings is lost; for the increased tone, tending to contract the artery, causes an increase of the arterial pressure, while at the same it time tends to decrease the pressure in the peri-vascular spaces, thus doubly operating to overcome the equilibrium. Immediately exosmosis begins; and this continues until equilibrium is re-established. Doubtless a general osmosis continues after this, in fact is always existent; but the ex-osmosis is in excess only till equilibrium is re-established. In the case we are assuming, the contraction occurred in response to a message from a weary brain, and it continues until the aggregate arterial lumen is greatly reduced in size, the entire brain being bathed in the serum of the peri-vascular spaces. Meanwhile, the heart beat continuing unchanged, the pressure must constantly have increased in the cranial cavity, and also, to a lesser degree in the system at large. Under the influence of increased pressure and deficient oxygenation (the corpuscles being separated by a layer of water from the cells), the cortical cells energize less and less, and finally they vibrate so feebly that consciousness plays fitfully and incoherently, and at last altogether disappears. Sleep has supervened. Still further the arteries contract until the minimum supply of blood is entering them; while the tissues are flooded with serum. Gradually the heart lessens in force, and the equilibrium of arterial pressure is kept up at a much lower level. The

vibratory apparatus of the cortical cells has become quiescent, but the matrix of the cell is undergoing rapid repair. Dissolved in the serum are all the nitrogenous constituents which have been partially lost to the cell during its time of energizing, and which are now eagerly seized upon to build up its degenerated tissues. It is really a time of feeding, and the serum is the pabulum of nourishment. During waking hours, this pabulum was never altogether absent, and a certain amount of repair went on concomitantly with destruction; but now the stimulus of the fiery oxygen is far withdrawn, the fibrils of the cell have ceased to vibrate, and the eager cell matrix revels in the abundant food supply. Each cell is a stringed instrument. From without, during waking hours, come the impulses which cause it to vibrate; the oxygen-laden blood fires the matrix and keeps up the vibration. But now, under the changed conditions of sleep, the instrument is unstrung. In vain the impulse, unless it be a very strong one, comes from without; no sound arises from the slackened cords. The fibres are quiescent; the cell matrix feeds and is builded up again. Waking was the time of involution of the material and evolution of mind; sleep now provides for evolution of the debilitated cell. As, when the sluices are opened in irrigation of an unwatered soil, the thirsty earth drinks in the welcome waters; so the hungry cells of the cortex, irrigated by this great flood of serum, draw to themselves the pabulum that their substance craves. At length the hungry cells are nearly satiated; their outlines are again filled out; they are assuming a condition of instability; their potential energy is ready to be turned to account,—to become kinetic. As the cells fill out, the fibres are becoming tense again; they vibrate slightly to trifling impulses from without. The vaso motor impulses slacken a little, and gradually the arterioles dilate, endosmosis accompanying. The absolute arterial supply is increasing. For a time there is almost an equilibrium between evolution and involution in the brain. Then, from within or from without—from heart, or viscera, or perhaps along the auditory apparatus—comes a slightly stronger impulse. The instrument is strung; its cells vibrate quickly in some locality of the cortex; involution of the cell matrix begins; the arteriole responds, slackens, is dilated, and an increased supply of corpuscles, bearing vivifying oxygen, courses through its enlarged lumen. A dream flits before the returning consciousness of the sleeper; he starts and perchance yawns or stretches; the heart gives a stronger beat, dilating still further the relaxed arterioles: a mass of blood has taken the place of the flood of serum, and the *ego* again has come.

Such are the processes of normal sleep. During normal waking hours, however, the vascular system of the brain is only moderately full; at all times many portions of the encephalon are serum-flooded and undergoing repair; only a small tract being at any time very actively energizing. But there may occur abnormal states in which, the vaso controlling centres failing to properly co-ordinate, a general dilatation of the arterioles causes an unusual hyperæmia of the cortex. In a brain so affected, hour after hour and day after day the oxygen-laden corpuscles sweep in floods through the distended arterioles and keep up a ceaseless, though a perverted and inefficient energizing. Irregular and in-coördinate vibrations are going on everywhere resulting in an inchoate meaningless rush of ideas,—a discord comparable to that which would result if the members of an orchestra were to play without a leader, each independently of his fellows. The normal mind has gone, and the individual in whose brain courses that unchecked current of hot blood, is a maniac. He cannot sleep, he cannot rest; his brain cells continue ineffectually to functionate till their last modicum of energy is gone; till the comparatively stable equilibrium of lowest involution consistent with their existence is reached; in popular parlance, till exhaustion is complete.

These illustrations, in the lines of normal and abnormal arterio-serous fluctuations, might be added to indefinitely, but we must content ourselves with these cursory glances, and go on to a brief study of the other methods of fluctuation.

Arterio-venous oscillations are best illustrated by an extreme case, and of course an abnormal one, since all extremes are so; that, namely, of passive congestion. Here while the aggregate amount of blood may be actually increased, there is, incongruous though such a statement seems, a true anæmia. The venous channels are turgid, and they occupy the space to the partial occlusion of the arteries. Only a feeble current flows through the vessels, and instead of a tense, actively vibrating brain, with mental exhilaration, we have a relaxed, atonic condition, deficient oxygenation and correspondingly inefficient energizing; with lassitude and depression of mind amounting, in extreme cases, to hypochondria or melancholia. Here again we may meet with insomnia, but for very different reasons. Here the brain cannot rest because organic evolution is at all times complete, the pabulum being constantly about the cells, and their substance being in its most unstable condition, needing, at any rate at first, only the active presence of the oxygen to set up its kinetic processes. The lack of "tone"

resulting from general cachexia, which usually accompanies this condition, we cannot stop to consider, though it could not be overlooked in an exhaustive analysis of the subject.

This illustration may be considered typical of the results of abnormal arterio-venous fluctuation. Any turgescence of the veins of the brain is a practical withdrawal of so much blood from the efficient circulation, and, according to the degree and the permanence of the condition, it will result in mere hebetude of mind, or in complete mental alienation. The ordinary normal arterio-venous oscillations, have been already briefly noted, and need not be reconsidered here.

The normal action of the inter-arterial fluctuation has also been referred to, as being exemplified more or less in every healthy mental action, and more especially in protracted thought. Abnormalities here result not so much from excesses and deficiencies, which operate in the other cases, as from inefficient coördination between different arterial branches. A case of simple mania may not suffer so greatly from hyperæmia of the encephalon—though more or less arterial turgescence is usually present—as from a failure of the vaso-controlling apparatus to properly manipulate the blood. The ideas of a mind thus ill-managed run on in a rambling, desultory manner, their associations being often far-fetched and illogical; but they are never truly disconnected, though often loosely spoken of as being so. The same rambling flashes occur to every mind during its most coherent working, but the normal volitional energy guides the arterial currents aright, inhibiting the flow in many channels and permitting it only in a few. A consideration of the causes that lead to equable coördination in one brain and to erratic coördination in another, furnishes one of the most fascinating problems of psychology, but one that cannot be entered upon here. We could willingly dwell upon and attempt to explain the emotions; the "currents" of normal thought, setting in slowly and ineffectually to swell at last to a "white heat" of fervor; the far-reaching coördinations of trained thinkers; the erratic scintillations of the poetic fancy; and many another mental process: but the full discussion of these topics can only be undertaken in connection with the combined consideration of the molecular and molar dynamical conditions of the brain. It may be premised here, however, that many a mental process otherwise obscure finds in the explanation of the blood supply a tolerably clear and palpable elucidation.

Of such paramount importance, indeed, is the cerebral circulation in its relations to the human mind, that the entire process of

self-culture might not inaptly be considered simply the gaining of an unconscious inhibitory control over the encephalic arteries. To gain such control should be the constant effort of every one who inherits a brain exhibiting, in any degree, the elements of instability. Let such a person—and who is not therein included?—never forget that, as the abnormal ever shows only an intensification, depression, or in-coördination of the normal; so in the exhilarated condition of mania we see only the extreme projection of such normal states as result in hilarity, fervid thought, joy, anger and the like; while the depression of melancholia is only the abnormal extreme of such normal conditions as apprehension, fear and grief. A paroxysm of anger is a temporary mania; a "fit of the blues," a modified melancholia; and as these sub-normal states may usually be prevented and controlled; so, often, might the truly pathological condition be averted, even in a brain of bad hereditary tendencies, by a proper, systematic, and unyielding self-culture. No brain is so strong or so good in its hereditary tendencies that its possessor may feel himself altogether free from the possibility of mental overthrow; and on the other hand none is so bad but that something can be done toward making it approximate normal stability. Undue indulgences, lack of control, and habitual excesses may cause the vascular supply of the most stable brain to at least seethe and surge with all the turbulent tumultuousness of a storm-tossed sea; while proper habits, constant vigilance and well-studied hygiene may bring many an erratic brain at last to so control its vascular currents that they shall ebb and flow with the smooth placidity of an unruffled tide,—powerful, well nigh resistless in momentum, yet equable, stable and composed. Such control can be acquired not at all directly, but only through the medium of the subjective resultant of the organic processes; that is, through the directive thoughts of consciousness. And these can operate, not upon the circulation immediately, but only mediately, through influence upon the molecular conditions of the encephalic cells. And this thought brings us, here at the close, to the same point which at first we noted,—an appreciation of the mutual dependence of the vascular and cellular forces; of the salient importance of each; and of the utter helplessness or either by itself. It shows us further that the incomprehensible *ego* which is the resultant of these wondrous somatic forces, re-acts efficiently upon the powers that brought it into being. With which thought—really only a corollary of the law of universal reciprocity of forces—we may well leave this aspect of the subject.

[TO BE CONTINUED.]

ELECTRIC DOOR-OPENERS FOR USE IN ASYLUMS.

BY M. J. WHITE, M. D.,
Superintendent of the Milwaukee Hospital for Insane, Wauwatosa, Wis.

The idea of providing some means of instantaneous release for inmates of asylums, in the event of fire or panic, has occupied my attention and study for some time past. The necessity of furnishing some certain method of release will be quite apparent: tending as it will to relieve apprehensions existing in the minds of many patients—notably new admissions of a mild type of disease, and convalescent patients, both of which classes are quick to appreciate their surroundings, and for whom the terrors of fire are very potent. Reflecting, as they do, upon the fact that they are locked on one side and barred upon the other, the disquietude occasioned by their situation must certainly be prejudicial to the chances of a speedy recovery; at all events it militates against the equanimity which might obtain were their fears on that score relieved. The utility of this system will be readily appreciated by all familiar with the management of institutions of this character, more particularly by those connected with the smaller asylums where the number of attendants is apt to be proportionately small, as it effectually removes the risk of attendants becoming panic-striken, and in consequence forsaking their charges. I was most forcibly impressed on this subject of speedy release in case of fire, by a conversation with a female patient in this asylum—a woman of superior intelligence. In the course of conversation, she said to me, "Doctor, what is to become of me if a fire should break out on this ward? I am virtually caged in this room." I replied, "You would immediately be released by the attendants in charge of the ward." She returned, "I wish I could persuade myself that such would be the case, but unfortunately I am tortured by the doubt that the 'girls' would lose their presence of mind and thinking only of their own safety would leave us to our fate." I allayed her fears as best I could, but the impression remained with me until I decided to leave open the doors on that ward—a convalescent ward—which I did, with a few exceptions. I then considered that this way out of the difficulty was not solved in the case of the great majority of the inmates, and accordingly I began to reflect upon the subject of securing some means of controlling all the doors instantaneously and simultaneously, and

which, moreover, would place the safety of the patients in most trustworthy hands. I entered into correspondence with superintendents of various asylums throughout the country to ascertain if any system was in operation, mechanical or otherwise, whereby a number of doors could be opened simultaneously. I received negative replies in every case. The system in use in penal institutions was the only one known, and that was to be deprecated on account of the association suggested. The idea of using compressed air was then entertained and was abandoned for that of electricity. I consulted with an electrician and together we ascertained that a door-opener operated by means of electricity, was in use in large apartment houses, having superseded the mechanical device formerly employed, but that its operation was confined to *one* door. It was argued that if a single door could be controlled by this means an indefinite number could be operated similarly, provided sufficient battery power were used. The lock referred to was sent for, put in place and connected, and it operated satisfactorily for a time; suddenly it failed, and upon investigation it was found that the lock not being encased, small particles of dust and plaster had dropped into it and crippled its working mechanism. Moreover, it was determined that the lock was not built with an idea of resisting sufficiently force which would likely be exerted upon it; also that the spring push, which was secured higher up on the door was too much of a toy affair and could be tampered with by patients so inclined. Another lock was procured, which was stronger, in every way, in construction and possessed the advantage of embodying the lock and spring-push in one piece; also being so constructed as to render it incapable of being toyed with or its mechanism to be interfered with by mischievous patients. The same objection presented, however, viz.: it not being encased. This we remedied by means of plates on all sides. I addressed the board of trustees of this asylum on the subject of providing a means of certain and speedy egress in case of fire; setting forth the dangers of relying solely upon the presence of mind of the attendants in such emergencies; dwelling on the defective condition of the mechanical locks which have been in constant use since the establishment of the institution; moreover, explaining minutely the perilous situation of the patients, which could not be fully appreciated by those dwelling in houses where window grating was unknown. I also endeavored to impress sufficiently the fact that the number of attendants was of necessity proportionately small, and the time

consumed in unlocking doors separately, provided the attendants preserved their composure, would be necessarily considerable and possibly hazardous. The gentlemen of the board, appreciating the force of the arguments adduced in favor of the system, and being strongly alive to the necessity of neglecting no practicable means to provide protection to the inmates, granted me the power to equip ten doors and operate them for a period sufficiently long to demonstrate beyond a doubt the feasibility of the scheme. Ten doors were accordingly fitted out in this manner, and they have been in successful operation for a considerable period, and give undoubted promise of fulfilling the work required of them. I will describe briefly the device used and the method of its application for use in asylums. The lock is set into the door jamb, and operates in connection with the bolt of the mechanical lock, which is of course situated in the door, in this manner: the bolt of the mechanical lock is slid behind the bolt of the electrical apparatus and held there securely by it until the current is turned on, when the electrical bolt recedes into the lock and releases the mechanical bolt; at the same instant a mechanical device, situate in the lock, in the form of a powerful spring push, and which, by the way, is up to the highest state of tension when the door is locked, is released and acting upon a small brass plate fastened to the door, serves to throw it a distance of three feet. The door is thrown open with its bolt shot and immovable and cannot be closed again except by means of the key as the electric bolt is immovable save when influenced by the current. This forms an advantage in preventing viciously inclined patients from securing themselves in their rooms or inveigling attendants therein and imprisoning them, as might happen in case a spring latch were used, as was suggested to me at one time. The device has the appearance of an ordinary lock, and nothing in connection with the system is objectionable as tending to suggest disagreeable associations; as the wires are all concealed under the mouldings of the door frames and carried through the floor to the ceiling below in the basement, and along it to a locked cabinet containing the cells. At present the ten doors are operated by means of eight cells, the ordinary Bell battery with sal ammoniac solution being used. A test of the apparatus is practically made every morning, as the patients are released in this way, and in case of any imperfect working the defect can be immediately traced and corrected, so as to insure its efficiency in any event. The push buttons are located in the attendants' rooms and are operated at that point,

but in order to make assurance doubly sure the wires are to be carried to the superintendent's office and are to be controlled from that point also. It is intended also to have a separate button to operate the exit and fire escape doors, which will be used solely in case of emergency. This arrangement will provide a perfectly free exit from the building as well as from the sleeping-rooms. I have recently introduced a fire drill among the patients, so that at a given signal they hasten to the hall and form in a double column, when they are counted by the attendants and marched to the fire escape. It may seem an incredible statement, but the great majority of our patients respond promptly to this drill. I would say that in carrying this out I have relied greatly on the force of habit which obtains as prominently among the insane as among the sane, and has proven quite effective in this instance. I am digressing, but I merely wished to call attention to the value of a drill of this kind in connection with the means of release provided by the electric system of door-openers and the advantages resulting from their combined operation. The subject of the safety of inmates of institutions of this kind is one that is deserving of serious reflection on the part of all interested in the care and treatment of this unfortunate class, and the apprehension of the patient for his or her release in case of fire or panic is certainly worthy our consideration. If any means can be devised which will tend to promote a feeling of security in minds diseased and morbidly apprehensive I am of the opinion that nothing of practical value in this direction ought to be disregarded or overlooked.

CLINICAL OBSERVATIONS ON THE ACTION OF SULFONAL IN INSANITY.

BY WM. MABON, M. D.,
Assistant Physician, State Lunatic Asylum, Utica, N. Y.

As so much has been written of late on sulfonal, it will not be necessary to describe the drug or give its history. In order to test the claims made for this new remedy it was determined to make a series of experiments on cases in this hospital. The observations here recorded were made on patients especially selected, many of whom had resisted the action of other hypnotics.

CASE I.—*Melancholia Agitata.* A. S., woman, aged forty-one. Before and after admission she suffered considerably from loss of sleep, and various hypnotics were administered with but little effect. A combination of chloral and tincture of hyoscyamus gave the most prolonged sleep, but it was restless in character and never continued more than six hours. Sulfonal was administered five times in 15 gr. doses and once in a dose of 30 grs. With the first named quantity sleep resulted in from half an hour to two hours, and continued from five to nine and a half hours. The dose of 30 grs. gave a sleep of nine hours' duration, and was induced in forty-five minutes. With two exceptions, when the sleep was restless and broken, its action was quiet and peaceful. No unpleasant after-effects were produced.

CASE II.—*Chronic Mania.* C. C., female, aged thirty-six. This patient had been unable to sleep more than four hours any night, although she had taken most of the sleep-producing remedies. Both day and night she was noisy and destructive and usually kept other patients awake by her shouting and screaming. Six trials in all were made, in five of which 30 grs. were given and in one 45 grs. With 30 grs. the result was obtained in from three-quarters of an hour to two and one-half hours, and continued from four to nine hours. When the drug gave only four hours' sleep (second trial,) its character was restless. The next night, therefore, 45 grs. were given, with which dose sleep was produced in half an hour, and lasted eight and a half hours. After this half-drachm doses sufficed. No unpleasant after-effects were noted.

CASE III.—*Melancholia.* K. P., woman, aged thirty-six. Com-

plained a good deal of loss of sleep, but generally slept well after taking chloral. As the patient was rapidly forming the chloral habit it was thought well to substitute sulfonal. Fifteen grs. were given twice a night for two nights, when the action proved so slight that the remaining trials were made with 30 gr. doses. With this quantity, which she took four times, sleep resulted each time within an hour and lasted from five to eight hours. In character it was natural and no unpleasant after-effects were observed. After the sixth trial the medicine was discontinued, and from that time she continued to sleep well without any hypnotic until her discharge.

Case IV.—*Melancholia with Frenzy.* M. A. Q., woman, aged thirty-three. Much disturbed, seldom sleeping more than three hours any night, and occasionally less. The first dose she received was 15 grs., and no effect being apparent in three hours, a second similar dose was given with the effect of producing in one hour a sleep that lasted four and a half hours. The other trials, six in number, were made with 30 gr. doses and gave satisfactory results; sleep commencing in from one to three hours and continuing from six to eight hours. Its character was quite natural, no unpleasant after-effects were observed, and the patient has been less disturbed since taking it.

Case V.—*Melancholia, With Periods of Great Excitement.* Mrs. E. McM., woman, aged forty. Whenever excited patient is wakeful, noisy, refuses to stay in bed and is persistently suicidal. Two doses of 15 grs. each were given the first night with negative results. The second trial was made with two doses of 30 grs. After taking the first dose, patient went to sleep in an hour, remained asleep for two hours, and was awake for one hour afterwards, when she was given the second dose, which produced in half an hour a sleep that continued for four hours. Five other trials with 30 gr. doses were made and resulted as follows: Sleep commenced once in two hours, once in three hours, once in two and one-half hours, once in half an hour, and once in three-quarters of an hour. It continued once five hours, twice six hours, once eight hours, and once seven hours. In no instance was the sleep fitful in quality, and no unpleasant after-effects were produced.

Case VI.—*Sub-acute Mania.* E. N., woman, aged thirty. Was quite comfortable until recently, when she began to express delusions and lose sleep. Sulfonal was administered seven times, three times in 15 gr. doses, and the remaining number in doses of 30 grs. With the first named quantity sleep commenced once in

three-quarters of an hour, once in an hour and three-quarters, and once in two hours, and continued the first night seven hours, the next seven and three-quarter hours, and the last five hours. With the 30 gr. doses its effects were in each trial produced within an hour and a half, and continued from seven to nine hours, resembling in character normal sleep. Slight somnolence the next day after taking the first dose of thirty grains was the only after-effect noted. The patient is now quite comfortable and rests well without any hypnotic—sleeping generally all the night.

Case VII.—*Periodic Mania.* P. A., woman, aged sixty-two. Recently returned from home, (where she had been on parole,) in a very disturbed condition. It was impossible for her to obtain sleep lasting more than four or five hours. At times would keep all the other patients in the ward awake with her shouting and pounding on the door. Thirty grains were given at the first trial, and patient slept seven hours, having gone to sleep three hours after taking it. Five more trials with the same quantity were made with very satisfactory results, *i. e.*, sleep began in from half an hour to three hours, and continued from seven and a half to eight hours. With one exception the rest obtained was quiet and peaceful, and no unpleasant after-effects were produced.

Case VIII.—*Chronic Mania.* E. N., woman, aged forty-five; violent, homicidal, destructive and noisy; generally sleeps from four to seven hours when taking chloral. Sulfonal was administered in all seven times in doses of 30 grs. with the following results: Sleep resulted once in two hours, once in an hour and a quarter, twice in half an hour, and three times in an hour. It was natural in character and continued twice eight hours, once eight and one-half hours, once six and one-half hours, and three times nine hours. No after-effects. The sleep produced by chloral in this case was broken in character, and after the effects ceased the patient became noisy. With sulfonal the night that she slept six and one-half hours only, was quiet when awake.

Case IX.—*Periodic Insanity.* A. H., female, aged thirty-one. During the periods of excitement, the patient's rest is much broken. She is then very noisy up and about her room most of the night, pounding and vociferating, and frequently disturbing the sleep of the others. Thirty grs. were given six times and 45 grs. once. Sleep resulted in each instance within an hour and a half and continued from four to nine hours; once four hours, once seven hours, once six hours, once eight hours, and three times nine hours. The fifth administration produced sleep of a restless

character, lasting only four hours. The next night 45 grs. were given, by means of which dose the patient obtained nine hours of nearly natural sleep. The seventh trial was made with a dose of 30 grs. when the effects were apparent in an hour, and continued eight hours. No after-effects.

CASE X.—*Chronic Mania.* W. M., woman, aged thirty-one. Unless having had chloral administered, patient is noisy at night. Sulfonal was administered eight times with unsatisfactory results. Three times doses of 30 grs. were given, but the sleep obtained was broken, and in the aggregate did not amount to three hours during any one night. Forty-five grs. were then given for three successive nights, and patient did not get to sleep until three hours had passed. The character of the sleep produced was the same as when she took doses of 30 grs, and its longest duration was only four hours. With 60 gr. doses, which were given twice, the patient went to sleep each time in an hour, and slept soundly four hours. Whenever this patient took chloral in doses of 20 grs. she always obtained from six to eight hours of sound sleep.

CASE XI.—*Acute Mania.* A. D. M., woman, aged forty-one. Very talkative, incoherent, excitable and noisy. Her nights were sleepless. Six observations were made with doses of 30 grs., and the results obtained were in each instance very gratifying. Sleep was produced as follows: Once in two hours, once in an hour, and four times in half an hour. She slept soundly one night seven and one-half hours, another six hours, another eight hours, and three nights nine hours and a half. No unpleasant after-effects were produced.

CASE XII.—*Melancholia with Frenzy.* H. B., woman, aged sixty-five. By reason of her excitement she was rapidly losing flesh and strength. At times would run up and down the ward wringing her hands and bemoaning her fate, and it was impossible to quiet her. She would also pick her skin, pull out her hair, and tear her clothing. In this case sulfonal was given during the day to test its value as a sedative. Morphia had been given hypodermically with but slight result. January 7th—Was given 15 grs. early in the morning, and after an hour became quiet and remained so for two hours. Again becoming disturbed she was given another dose of the same quantity, and in half an hour she became quiet, and an hour later went to sleep for four hours. January 8th—Was given two more doses of the same amount with similar effect. Both nights the patient slept about six hours, and since that time she has been decidedly more comfortable.

Case XIII.—*Dementia.* W. J. D., male, aged forty-two. Generally wakeful, and inclined to get out of bed and wander about the ward when not under the influence of hypnotics. Seven trials were made with doses of 30 grs. The first administration induced in half an hour a sleep lasting eight hours. In the remaining six trials sleep resulted in from half an hour to one hour and a half, and continued from six to eight hours. Once it was restless and broken, but in the other trials natural. No unpleasant after-effects were observed. With this patient a combination of chloral and hyoscyamus generally produced continuous sleep for six hours.

Case XIV.—*Chronic Melancholia.* N. D., male, aged fifty-six. Somewhat irritable, and given to scolding; noisy at night; resists the action of the usual hypnotics with the exception of chloral, which generally gives from six to eight hours' sound sleep. Three doses of 30 grs. each were given to this patient. The first produced sleep in three-quarters of an hour and continued six and one-half hours, the second trial resulted in the effects being produced in an hour and a quarter and continuing seven hours, but the character of the sleep was restless. Following the third administration the patient went to sleep in an hour, and slept soundly seven hours. No unpleasant after-effects were produced.

Case XV.—*Melancholia.* G. B., male, aged twenty-seven. Whatever sleep this patient obtained before taking sulfonal was generally broken. Seven trials with doses of 30 grs. were made. In the first, sleep resulted in two hours and continued six hours; in the second went to sleep in one hour, and slept seven and a half hours; third, effects produced in an hour, and continued seven and one-half hours; fourth, was asleep in an hour and slept five hours, character was broken and restless; fifth, went to sleep in an hour, and slept soundly eight hours; sixth, action began in an hour and the sleep produced continued nine a half hours; seventh, the effects were observed in half an hour and continued ten hours. With the exception of the fourth trial the character of the sleep was natural. No unpleasant after-effects were noticed.

Case XVI.—*Senile Dementia with Depression.* H. W., man, aged seventy-three. Generally noisy at night and not inclined to remain in bed. Doses of 30 and 45 grs. were given. First trial, after taking 30 grs. went to sleep in an hour and slept well for for nine hours; was somewhat somnolent the next day. Second, 30 grs., went asleep in an hour and a half, but slept only three hours. Third, 30 grs., result the same as in the second trial. Fourth, 30 grs., slept fitfully during the night about three hours.

Fifth, 45 grs., asleep in an hour, and remained asleep for six hours. Sixth, dose 45 grs; the result of this trial was the same as that in the fifth. Seventh, dose 45 grs., effects were produced in an hour and continued for seven hours. With the exception of the day following the first administration, no unpleasant after-effects were produced.

Case XVII.—*Melancholia.* L. D., woman, aged sixty-six. Somewhat hypochondriacal. From the time of admission has complained of not sleeping well. The reports of the night nurses show that she generally obtained sleep of several hours' duration. Nine trials were made with 15 gr. doses, and the sleep that resulted was produced within an hour and a half, and continued from five to seven hours. She complained, however, that she did not get a restful sleep. Four trials of 30 gr. doses were then made, in each of which sleep resulted within an hour and continued nine hours. Said that she rested better than at any time since admission, but thought the medicine produced constipation. This statement, however, is not borne out by the nurse.

Case XVIII.—*Acute Mania.* F. C., woman, aged thirty-six. Recently admitted. Before coming to the hospital had taken sulfonal with good results. Patient refused to take food and medicine. Said that her dead father appeared to and told her that she must take neither, but must be cured by faith. Patient was fed by means of stomach-tube, sulfonal being given with the feeding mixture. Four times it was given in doses varying from 15 to 60 grs., but the patient did not obtain more than two hours' sleep at any one time. Before admission she resisted the action of other hypnotics.

Remarks.—Omitting Case XII, in which it was not used as a hypnotic, sulfonal was administered 119 times on 114 nights, as follows: In 15 gr. doses 26 times, in 30 gr. doses 81 times, in 45 gr. doses 9 times, and 3 times in 60 gr. doses. On 83 nights sleep was produced which continued six hours or more; on 20 nights, from three to six hours, and on eleven nights less than three hours. The sleep produced was natural on 97 nights and restless and broken on 17. In Case X and Case XVIII, the administration did not give satisfactory results. The time required to produce sleep was on the average one hour and a quarter. The only unpleasant after-effect noted was slight somnolence in two or three instances. With the later administration of the drug in these same cases this symptom was not persistent. In regard to the dosage, the facts brought out by these observations seem to indicate that

not much can be expected from 15 gr. doses in the class of cases in which the trials were made. Generally 30 grs. will be found sufficient to bring about a quiet and refreshing sleep. As to the method of administration, in the early trials sulfonal was given suspended in mucilage, but later in hot milk and hot gruel. The principal advantage of using the later menstruum was increased promptness of action. (In one case there was a difference of an hour between the two methods.) During the period of these experiments comparisons were made with other hypnotics, and the conclusions arrived at were, that in the majority of cases the sleep produced by sulfonal was the most satisfactory; it was calmer, continued longer, and was more refreshing than that produced by any other hypnotic. Among the advantages that sulfonal possesses over other sleep-producing remedies may be mentioned the absence, after its use, of disturbances of digestion, secretion, circulation and respiration; its easiness of administration, its tastelessness, its odorlessness, and finally, the important fact that the resulting sleep closely approximates in quantity and quality that of nature.

Since the foregoing observations were recorded, the use of sulfonal has been continued by the writer with similarly satisfactory results.

CLINICAL CASES: I—MANIA IN EXOPHTHALMIC GOITRE. II—EXOPHTHALMIC GOITRE IN MANIA?

BY C. K. CLARKE, M. D.,
Medical Superintendent, Asylum for Insane, Kingston, Ont.

The following cases are of interest, but one of them claims particular attention, as exophthalmic goitre was without doubt the cause of insanity. The cases are published simply as contributions to the mass of evidence that is gradually accumulating to demonstrate the exact nature of the connection between the thyroid gland and the nervous system. There is undoubtedly a tendency to mental disease in myxœdema, and it seems almost as certain that in exophthalmic goitre a maniacal condition may develop. In the second case detailed there is every reason to believe that the goitre made its appearance *after* the development of insanity; at all events the history of the patient is so imperfect that the exact relation of the goitre to the insanity must be uncertain.

I am indebted to Dr. K. N. Fenwick, of Kingston, for much of the history of Case No. I, and it will be observed that the girl had many of the symptoms present in Dr. Clouston's case, *vide* Mental Diseases, page 604.

October, 1888. E. W., æt. 30; female; single. Always had a pale, sallow complexion, and although never in robust health, was fairly well until four years ago, when she began to show marked signs of physical weakness. These were the first indications of disease. At this time she was subject to what she called bilious attacks, and frequently vomited. She took tonics of iron to relieve the condition of anæmia. A little over two years ago it was observed that her eyes were more prominent than before, and at about the same time she complained of smothering sensations that were attributed to heart disease. At the same date headaches gave more or less trouble, and Miss W. repeatedly said that she was certain these headaches would eventually cause her to go out of her mind. About October, 1887, a soft goitre was first noticed, and Dr. Fenwick diagnosed exophthalmic goitre. During the last six months of the patient's life her appetite was enormous—in fact, during the course of the disease the appetite was at all times good. The patient menstruated regularly until Christmas, 1887, when the discharge disappeared and did not return until August, 1888.

Miss W. often complained of great itching over the whole surface of the body, and during the winter of '87 and '88 suffered from a burning sensation in the back. For a year she could not close her eyes even when asleep, and it was observed that she never winked. The rapid action of the heart was well marked, and in the early stages of disease was particularly noticeable to the patient after any slight exertion, such as going up stairs or sweeping. During the last year of her life the patient became exceedingly nervous and irritable, and had what she called "nervous spells" from time to time. In March, 1888, she was so weak that death was looked for and in this month left-sided paralysis developed, but ultimately the patient improved in general health and was once more able to go out of doors. Large quantities of mucus were expectorated some weeks before death.

I saw the patient in the early part of September, 1888, in consultation with Dr. Fenwick, who informed me that she was suffering from mania. We found her in a distressed condition of mind—fearful of everything. She had choreic movements in nearly all of the muscles and spoke with difficulty. The left-sided paralysis was marked; pulse 140; action of the heart tumultuous; weakness extreme. At times she became violently excited, maniacal; and had marked delusions; in fact her excitement was so great that the necessity of asylum treatment was seriously considered. The extreme weakness of the patient made it possible to care for her at home, and after the mental trouble developed, she rapidly sank and died on October 1, 1888. Permission to make a post mortem examination could not be obtained.

Case II.—A. C., aet. 46; single; was an asylum resident for eighteen years, and was insane for several years before admission. When I first knew him in 1882 his appearance was remarkable and to the most superficial observer suggested exophthalmic goitre, as his eyes were protuberant and the thyroid gland enlarged. On more than one occasion physicians passing through the wards asked if the patient had exopthalmic goitre. In spite of these appearances there was nothing for some time that rendered a definite diagnosis possible. Early in 1888 he began to complain of palpitation and irritable heart, but was so much wrapped up in his delusions that it was difficult to get much information from him in regard to his condition. The pulse was weak and rapid, 120 to 140, the goitre was soft, right-sided and of moderate size, eyes much more protuberant than at any previous time. In August, 1888, the action of the heart was tumultuous and its movements were plainly

visible in the precordial region. There was a suspicion of an organic murmur, but it was difficult to determine the point satisfactorily owing to bronchial trouble and wheezing resulting from pressure of the goitre on the trachea. In October, 1888, the patient became dropsical, was tapped twice, but gradually sank and died on 17th November, 1888.

At the post mortem the pericardium was found inflamed and filled with fluid (about six ounces). Heart flabby and slightly enlarged, mitral valves normal, aortic valves would hold water, but near the corpora Arantii there was a slight amount of inflammation. There was absolutely nothing of organic nature in the heart to account for death, and the case was without doubt one of exophthalmic goitre.

A CASE OF GENERAL PARESIS OF FOURTEEN YEARS' STANDING.

BY WHARTON SINKLER, M. D., AND EDWARD N. BRUSH, M. D.,
Of Philadelphia, Pa.

On September 1st, 1885, I was consulted by Mr. A. B., who was referred to me by my friend, Dr. C. A. Oliver. I obtained the following history:

Mr. A. B. was thirty-eight years of age, and had been married for several years; his wife had had no children or miscarriages. He had syphilis some years prior to his marriage. He had always enjoyed good health and had been actively engaged in business as a broker for many years.

Two or three years before I saw him he had failed in business, and since then had had no regular employment. This want of occupation seems to have made him restless and unsettled, and he talked constantly about the hardship of having no business, and he said if his friends would only purchase a seat for him in the Board of Brokers, he could soon become wealthy. He had no other expansive delusions at this time; but his wife told me that for ten years he had had somewhat extravagant ideas as to his powers of money-making, and that he had been more or less erratic. He was irritable at times, and he would occasionally give way to violent temper.

Several members of his family—three brothers—were, or had been, insane, and also one of his uncles had suffered from some form of mental trouble.

On August 5th, 1885, he wakened in the morning with violent pain in the eyes—most severe in the right eye. A day or two later, he noticed that he had double vision, and he then consulted Dr. Oliver. When I saw him he had almost constant pain in the right brow, and paroxysms of more acute pain in the same location. He was annoyed by the diplopia. He was otherwise in good health, with the exception of attacks of abdominal pain which were apparently always due to imprudence in diet. He was a large and indiscriminate eater. I used electricity—the Faradic current—to the external rectus; gave him iodide of potassium internally and regulated his diet. In a few weeks the pain was relieved and the double vision had disappeared.

visible in the precordial region. There was a suspicion of an organic murmur, but it was difficult to determine the point satisfactorily owing to bronchial trouble and wheezing resulting from pressure of the goitre on the trachea. In October, 1888, the patient became dropsical, was tapped twice, but gradually sank and died on 17th November, 1888.

At the post mortem the pericardium was found inflamed and filled with fluid (about six ounces). Heart flabby and slightly enlarged, mitral valves normal, aortic valves would hold water, but near the corpora Arantii there was a slight amount of inflammation. There was absolutely nothing of organic nature in the heart to account for death, and the case was without doubt one of exophthalmic goitre.

A CASE OF GENERAL PARESIS OF FOURTEEN YEARS' STANDING.

BY WHARTON SINKLER, M. D., AND EDWARD N. BRUSH, M. D.,
Of Philadelphia, Pa.

On September 1st, 1885, I was consulted by Mr. A. B., who was referred to me by my friend, Dr. C. A. Oliver. I obtained the following history:

Mr. A. B. was thirty-eight years of age, and had been married for several years; his wife had had no children or miscarriages. He had syphilis some years prior to his marriage. He had always enjoyed good health and had been actively engaged in business as a broker for many years.

Two or three years before I saw him he had failed in business, and since then had had no regular employment. This want of occupation seems to have made him restless and unsettled, and he talked constantly about the hardship of having no business, and he said if his friends would only purchase a seat for him in the Board of Brokers, he could soon become wealthy. He had no other expansive delusions at this time; but his wife told me that for ten years he had had somewhat extravagant ideas as to his powers of money-making, and that he had been more or less erratic. He was irritable at times, and he would occasionally give way to violent temper.

Several members of his family—three brothers—were, or had been, insane, and also one of his uncles had suffered from some form of mental trouble.

On August 5th, 1885, he wakened in the morning with violent pain in the eyes—most severe in the right eye. A day or two later, he noticed that he had double vision, and he then consulted Dr. Oliver. When I saw him he had almost constant pain in the right brow, and paroxysms of more acute pain in the same location. He was annoyed by the diplopia. He was otherwise in good health, with the exception of attacks of abdominal pain which were apparently always due to imprudence in diet. He was a large and indiscriminate eater. I used electricity—the Faradic current—to the external rectus; gave him iodide of potassium internally and regulated his diet. In a few weeks the pain was relieved and the double vision had disappeared.

I did not see the patient again until September 4th, 1887, when I was sent for to see him, and found him suffering from the effects of two epileptiform convulsions which he had had the previous day. I found that he had had three or four fits in the few months previous to this time. When I saw him, he was only partially conscious. When roused, his speech was incoherent and thick. He was unable to express his wants. There was no paralysis. In twenty-four hours after this time, he had recovered consciousness completely, and was able to speak distinctly, but with some hesitancy. He was given bromide of sodium—15 grs. three times a day—and in a few days he was about and apparently as well as usual.

September 11th, he had a slight attack, which was more like a faint, and was not followed by speech difficulty.

September 25th, he had an attack of extreme excitement brought on without sufficient provocation; mind much disturbed for some hours; he has some delusions; he talks incessantly of the hardships he is enduring at the hands of his friends, who will not buy him a place in business. He thinks he still has great opportunities for money-making if he only had a chance. Most of the time he is in good spirits, laughing and talking, and appears well satisfied with himself.

November 22d, 1887, he had another attack in which he was unconscious, followed by severe pain in the head and sense of general fatigue. His mental condition is becoming worse; his memory is bad.

January 7th, he had four convulsive attacks, after which he was violent and abusive to those about him. When seen by me—January 11th,— he was aphasic, and had been so since the date of the last spasms. There is ptosis of the right eye, but no loss of power in the arm or leg.

January 24th, aphasia has almost disappeared; except when he is excited he occasionally misapplies a word. He was ordered iodide of potassium, 20 grs. three times a day.

March 20th, he has had no attack since last note until one week ago, when he had an attack following a long walk through the snow. He came into the house with expressionless face; stood for a few minutes looking blankly about; and was then seized with convulsive movements. Both arms shook violently and were drawn upwards; the face was drawn to the left; the attack lasted ten minutes. He afterwards slept heavily for some hours but was restless the remainder of the night. He was not aphasic the next

day, but to-day he is, markedly; is readily excited, and talks incessantly. Dynamometer, first effort—right hand 190; left, 160; next effort—right hand 160; left, 140.

March 31st, he had another attack, followed by temporary aphasia.

April 13th, and April 18th, two more attacks.

May 1st, 1888, he is still very aphasic. He talks incessantly; but continually uses the wrong word and mispronounces words of many syllables. The dynamometer—right hand 180–160–120; left hand 150–120–120. (It will be noticed that the strength of the right hand becomes quickly impaired.)

May 20th, 1888, he has had no more attacks, but continues very aphasic: talks incessantly; beginning to have expensive ideas—talks of going into "big transactions;" says he is going to make "big money." In speaking, there is considerable mouth-tremor; great tremor of tongue when protruded.

May 28th, had another attack; for eight hours the right side was paretic. The mental condition continued to grow worse; periods of excitement more frequent and at intervals he was suspicious of every one and every thing, although there was no paralysis. The bodily weakness increased; he could make no physical exertion without being greatly exhausted. Most of the time, however, he was in good spirits and talked incessantly, but incoherently—the aphasia remaining about the same.

Finally, in October, his condition was such that it became necessary to transfer him to the Pennsylvania Hospital for the Insane, where he was placed under the care of Dr. Brush, whose report of the subsequent progress of the case you will see below.

———

I append the report of the eye-examination made by Dr. Charles A. Oliver:

Mr. A. B. first consulted me in August of 1885, with the history of sudden pain in the right eye, which had come on seven days previously. Patient said that he had been myopic for a long while, for which he had used –S. 3. D. in each eye for distance alone.

Vision of right eye equaled $\frac{5}{50}$ which was brought up to $\frac{5}{20}$ by –S. 3. D.

Vision of left eye equaled $\frac{5}{50}$ which was brought up to $\frac{5}{20}$ by –S. 3. D.

Accommodation of right eye equaled type O. 50D. 13cm. to 33cm.

Accommodation of left eye equaled type O. 50D. 11cm. to 41cm.

Ophthalmoscopic examination without the use of a mydriatic, showed dirty gray discs without any other pathological changes except those ordinarily found in cases of compound myopic astigmatism.

With both eyes, vertical diplopia of ten degrees, gave a homonymous diplopia of five degrees at twenty-six centimetres. Careful estimation of refraction by the use of Atropine, showed O. D. –S. 3. D. ⊃ –C. O. 75 D. axis 180°, and O. S. –S. 2. 50D. ⊃ –C. O. 50D. ax. 180°. This correction gave full vision in each eye. Study of the excursions of the extra-ocular muscles showed a slight paresis of the right internus.

Diagnosis: paresis of right externus with compound myopic astigmatism.

Two days before receiving correction, the patient returned complaining of double vision for distance which had come on a few days previously. Examination showed nearly five degrees of homonymous diplopia for five metres, and seventeen degrees for twenty-six centimetres. Patient referred to Dr. Wharton Sinkler for general treatment.

Two days later, full correction ordered for distance, and the cylinders for near work; a plain ground glass being substituted for the correction on the left side during the persistence of the double images.

In five weeks' time after this treatment, the paresis had decreased to five degrees for the twenty-six centimetre distance, and double vision for distance had become quite infrequent.

Four weeks after this all diplopia had ceased, and none could be obtained by testing. The ground glass was now removed.

In January of 1887, at Dr. Sinkler's request, an ophthalmic re-examination was made. Central vision for black type on white ground, with the ametropia corrected; was found to be normal. Central color preception proved to be good in each eye. Fields of vision were normal, though those of the left eye were probably somewhat reduced in area. The accommodative near points had slightly receded, but not more than could be expected for the lapse of time between the two examinations. The eye-grounds however, gave marked evidences of regressive neuro-retinitis, this being more pronounced upon the left side. Upon individual exposure, the left pupil was the larger, though conjoinedly, both became equal. In associated action, the irides were freely mobile to light stimulus

and accommodative action. In monocular action, the left iris was not so freely responsive. A slight paresis of the right externus could be made out.

Résumé.—Paresis of the right externus, which promptly yielded to treatment in a little more than two months' time, followed in eighteen months' time by post-neuritic changes, (incipient degeneration,) more marked on the left side, with slight paresis of the external rectus of the opposite side.

Remarks.—There are two points of special interest in this case to the neurologist: First, the slow progress of the disease—the history of mental disturbance extending over a period of ten or eleven years —and secondly, the question of diagnosis.

The case seemed to me to be one either of *brain tumor*—that is, a gummatous growth in the left frontal lobe; or *general paresis.*

I was, at first, disposed to adopt the former view on account of the localizing symptoms, namely: the epileptiform convulsions, affecting chiefly the right side and followed by aphasia, which was at first transient, but afterwards became permanent; and the ophthalmoscopic examination of Dr. Oliver, in which he found neuro-retinitis, confirmed this view. Later on, however, the symptoms of *general paresis* became more manifest, and as a report of the autopsy shows, the only lesions found were those of *general paresis.* It is unfortunate that portions of the brain which were preserved for microscopic examination decomposed before they could be examined. In a case like this where there was such distinct aphasia one would surely expect to find some microscopic changes in Broca's convolution even if there were no gross lesion.

The patient had the benefit of full anti-syphilitic treatment. The iodide of potassium was given up to one hundred and fifty grains a day, and mercury was given steadily for fully two months.

MEDICAL JURISPRUDENCE.

SUPREME COURT.

ALFRED AYERS, *Appellant*,
against
SELWYN A. RUSSELL, DANIEL V. O'LEARY and ANTHONY GOULD, *Respondents.*

In its issue for April, 1888, this journal gave in full the opinion of Mr. Justice Mayham in this interesting case, and briefly stated the important medico-legal question involved. In presenting the opinion of the Supreme Court of New York, to which an appeal was taken, the JOURNAL cannot do better than reprint the opening remarks of the President of the New York State Medical Society, Dr. S. B. Ward, of Albany, at its annual meeting in Albany, February 5, 1889:

It seems but right that your attention should be called to the somewhat novel and very disagreeable position in which two of our professional brethren here in Albany have been placed within the past year, as the result of examining a man whose actions had been such as to raise a doubt concerning his mental soundness. It is a matter of no little importance to us all, for any two of us might easily have found ourselves in the same unpleasant predicament. Examination, cautiously and properly conducted, showed the man to be the subject of the delusion that his wife and daughter were conspiring to poison him—a perfectly unfounded suspicion. The usual papers were made out, signed and sworn to, and he was transferred from the jail to the insane asylum. He brought suit through his attorneys to recover his liberty, and the case came before Judge Learned, of the Supreme Court, who virtually decided that no man could be judged insane and sent to an asylum on the certificate of two physicians, in the way usually followed, unless he had shown that he was dangerous to himself or others. Before this court and jury the man was judged sane, though it was shown that he was laboring under delusions. He then commenced action against the recorder and two physicians to recover several thousand dollars damages. The defendants put in a demurrer, on the ground that even if all the facts were as stated there was no cause for action, and the demurrer was sustained by Justice Mayham. Appeal being taken to the General Term, a decision handed down last December sustained the demurrer as to the recorder, on the ground that he was a public official, but overruled it as to the two physicians. It appears, then, that in accordance with the latest decision of the Supreme Court of this State any two of us who express the opinion that a man is

insane, on any other ground than that he is dangerous to himself or others, become thereby liable to the annoyance of a suit for damages.

AYERS *v.* RUSSELL *et al.*

(*Supreme Court, General Term, Third Department*, November 20, 1888.)

1. CONSTITUTIONAL LAW—DUE PROCESS OF LAW—LUNATICS.

   Laws N. Y., 1874, c. 446, provides that no person shall be confined as a lunatic except on the sworn certificate of two physicians to the fact of his insanity, after a personal examination, and that such confinement shall not be for more than five days, unless a judge of a court of record shall approve the certificate. The judge may take proofs as to the question, or call a jury to determine it, and an appeal with trial by jury lies from his order. Held, that the confinement pending the proceedings, and previous to a discharge on appeal, is not a deprivation of the alleged lunatic's liberty without due process of law or the judgment of his peers.

2. JUDGE—JUDICIAL ACTS—COMMITMENT OF LUNATICS.

   The action of a judge in approving the certificates is judicial, and he is not liable in damages for error in judgment, though a lack of due care and prudence be alleged.

3. PHYSICIANS AND SURGEONS—EXAMINATION OF LUNATICS—ORDINARY CARE.

   The physicians are liable for lack of ordinary care and prudence, and for failure to make due inquiry into the question of sanity, as their duties are not judicial. INGALLS, *J.*, dissenting.

4. SAME—NEGLIGENCE—PLEADING.

   A complaint averring that the physicians made the certificate "without proper and ordinary care and prudence, and without due examination and proof into the fact whether plaintiff was sane or insane," sufficiently alleges negligence; such an averment being one of fact, and not a legal conclusion. INGALLS, *J.*, dissenting.

Appeal from Special Term, Albany county.

Action by Alfred Ayers against Selwyn A. Russell, Daniel V. O'Leary, and Anthony Gould, the first two being physicians, and the latter the recorder of the city of Albany, for damages alleged to have been sustained by the wrongful confinement of plaintiff as a lunatic. From an order sustaining the demurrer of all the defendants to the complaint plaintiff appeals.

Argued before LEARNED, *P. J.*, and LANDON and INGALLS, *J. J.*

Colvin & Nevitt, for Appellant. *Harris & Rudd*, for Respondent Russell. *Francis H. Woods*, for Respondent O'Leary. *Herrick & Delehanty*, for Respondent Gould.

LANDON, *J.*:

The statute respecting the care and custody of the insane, Chapter 446, Laws 1874, does not deprive the alleged lunatic of the right of trial by jury. It does, however, provide for his sum-

mary and temporary confinement "upon the certificate of two physicians under oath setting forth the insanity of such person." But this confinement is "for the care and treatment" of the insane party. This confinement must not exceed "five days unless within that time such certificate be approved by a judge," etc. Obviously these are humane provisions intended to secure proper care and treatment for the insane, and to protect third persons from their irresponsible violence.

The judge "may institute inquiry and take proofs as to any alleged lunacy before approving or disapproving such certificate, and * * may in his discretion call a jury in each case to determine the question of lunacy."

The defendant contends that "may" as here used means "must," because the rights of the public and of third persons are concerned, and that there can be no relaxation of statutory safeguards in favor of liberty. Conceding the general rule to be as claimed, it is obvious from the nature of the case, and from the words of the statute, that the judge is vested with a discretion adequate to the exigency. Some cases are too plain to admit of doubt; others are doubtful. The judge must act as he thinks most wise under circumstances, which sometimes must be painful, but leaving no doubt as to the propriety of prompt and decisive action, and at other times of such doubt and delicacy as to suggest every precaution the statute affords. But when summary action has been taken and the alleged lunatic is confined upon the certificate of the physician approved by the judge, the lunatic himself or any friend in his behalf "may within three days after such order or decision appeal therefrom to a justice of the Supreme Court who shall thereupon stay his being sent out of the county, and forthwith call a jury to decide upon the fact of lunacy." § 11.

Such an appeal was taken in this case, and the jury pronounced the plaintiff sane and he was thereupon discharged. The plaintiff urges that by his confinement until his discharge he was deprived of his liberty without due process of law or the judgment of his peers. Const. Art. 1, Sec. 1.

A person charged with felony is first arrested, and upon examination before the magistrate committed to jail to await the action of the grand jury. He may not be indicted, or if indicted may be acquitted upon trial. Meanwhile he lies in jail awaiting his discharge upon the final judgment of the law that he is not guilty. In the absence of a malicious prosecution, it has never been

alleged that he was deprived of his liberty without due process of law or the judgment of his peers.

The State cannot take all steps at once, and when provision is made that they shall be taken one after another with reasonable care and expedition in the manner and form approved by experience and sanctioned by law, the individual, who, as it must sometimes happen, suffers a temporary deprivation of liberty, must necessarily remain without remedy. The State provides the best system its wisdom suggests, but so long as it must be administered by men, it cannot guarantee against occasional mistakes.

The defendant, the recorder, had the powers of a judge of a court of record. His approval of the certificates of the physicians was a judicial act. It was an act analogous to the issuing of a warrant for the arrest of an alleged criminal upon information verified by oath. If the information fills the requirements of the statute the magistrate's jurisdiction is complete. But the information may be incomplete in fact; some essentials specified in the statute may be omitted; the magistrate may not be learned in the law, or if learned, not always sound in judgment; he looks at this information and decides that a case exists when in fact and in law there is no case; he issues his warrant when he ought not, and the result is that a man who has committed no crime, and against whom no crime is alleged, is arrested, and temporarily deprived of his liberty. In one aspect of the case the magistrate had no jurisdiction, because the law gives him no jurisdiction to issue a warrant unless it appears that an offense has been committed, and there is reasonable cause to believe that the accused committed it. A judge upon *habeas corpus* ought to decide that the magistrate had no jurisdiction to issue the warrant. Why then cannot the magistrate be pursued by the injured individual? Because when the information was presented to him it was his duty to decide what his duty was respecting it. He had jurisdiction of that question and his wrong decision upon it was a judicial error. He had a duty to perform and the law does not punish him for a mistake in trying to do it right. In Lange v. Benedict, 73 N. Y. 35, the judge pronounced a sentence which he had no jurisdiction to pronounce, but he supposed he had and it was his duty to decide whether he had or not. He had the statute for his guide, but he had to interpret the statute and he did not interpret it aright. But he had to decide, he was no mere volunteer; he made a mistake, but he made it in the discharge of his master's (the government's) business, and his wrongful act was the government's, not his own, and he incurred no personal liability.

No cause of action is stated in the complaint against the recorder. The charge of a lack of due and ordinary care and prudence adds no support to a charge of liability for judicial acts. Public policy forbids that a disappointed suitor should be clothed with such a weapon with which to smite or annoy a judge who decides against him.

The defendants, the physicians, were such experts as the statute authorizes to make the certificate of the plaintiff's insanity. No allegation is made in the complaint of a defect of a proper request or information upon which they proceeded to examine the plaintiff and make their certificate, and none can be presumed.

The physicians followed the forms of the law. Whether the reasons set forth by them in the certificates for their conclusion that the plaintiff was insane were sufficient or not is immaterial. The presumption is that they set forth such reasons as in their opinion were sufficient, and such as appeared to them to be true in fact.

But the complaint charges that the physicians made the certificate "without proper and ordinary care and prudence and without due examination, inquiry and proof into the fact whether plaintiff was sane or insane,"

We think the physicians owed the plaintiff the duty of making the examination with ordinary care. Their duty must be measured by the trust which the statute reposes in them, and by the consequences flowing from its improper performance. They assumed the duty by accepting the trust. They are not judicial officers, but medical experts. They are not clothed with judicial immunity, and are chargeable with that negligence which attaches to a professional expert who does use the care and skill which his profession *per se* implies that he will bring to his professional work. It is urged that the physicians are privileged by the statute, and their certificates are privileged communications. Doubtless this is true if they discharge their duty with ordinary care; but in the absence of such care, their privilege cannot protect them. Their privilege is that so long as they do their duty with the care and skill the statute presumes and requires, they are not responsible to the plaintiff for the consequences, however harsh they may be, for in such a case the law afflicts the plaintiff; but when they do not use such care and skill it is their personal negligence which afflicts him.

The remaining question is whether the complaint sufficiently alleges negligence upon the part of the physicians. They urge that

facts are not stated, but only conclusions of law. We think, however, that the portion of the complaint above quoted imputing negligence is a statement of conclusions of fact. Plainly if all the details were set forth, the sum of which would amount to the charge of negligence, the complaint would be open to the objection of pleading evidence. All the evidence may be set forth in a complaint without setting forth any case at all. The charge of negligence embraces the sum of all the evidence necessary to establish it, and it is therefore a conclusion of fact.

The judgment of the special term is reversed as to the defendants, Russell and O'Leary, and their demurrer overruled with costs of this court and of the court below, with the usual leave to withdraw the demurrer and answer on payment of costs, and is affirmed as to the defendant Gould with costs.

SARATOGA, September, 1888.

LEARNED, *P. J.:*

I think that the meaning of the first article of chapter 446, Laws of 1874, cannot be understood without reference to some statutes which were in existence when it was passed and some of which are in existence now.

The Revised Statute, Part I, Chapter 20,703, is of the safe care and keeping of inmates. Section 1 provides that when a person is so far disordered in his senses as to endanger his own person or the person or property of others, if he has sufficient property, it is the duty of his committee to confine him.

Section 2 provides that, if such person is not of sufficient property, the like duty rests on certain relatives, if they are able.

Section 4 provides for the case of refusal or neglect as aforesaid, or of want of means. It authorizes the overseers of the poor to apply to two justices. If they are satisfied it is dangerous to permit the lunatic to go at large they are to issue their warrant to the constables and overseers, commanding them to apprehend and confine the lunatic.

Section 12 provides that previous sections do not affect the power of the Chancellor.

Chapter 135, Laws of 1842, Section 20, provided that under the statute above cited the lunatic should be sent in ten days to the lunatic asylum or some other public or private asylum, &c.

And section 21 gave to any lunatic or his friend a right of appeal in three days to a judge, who might call a jury, and, with

the aid of two physicians, decide on the fact, and either discharge or confirm the order.

Section 22 forbade justices, superintendents and overseers, under the said Title of the Revised Statute, to order or approve without the evidence of two reputable physicians in writing.

This title of the Revised Statutes seems to be unrepealed. Whether the act of 1842 is repealed or not I need not inquire. It is enough to notice that these sections 20, 21 and 22 did not establish a system for the apprehension and confinement of lunatics. They only placed safeguards and restraints around the powers given by the Revised Statutes.

We now come to Chapter 446, Laws of 1874. We shall find in like manner that while this statute in Art. I embodied several of the provisions of the Act of 1842, it did not establish a system of apprehension and confinement, but imposed restrictions and safeguards on the power given by the Revised Statute.

Thus section 1, requiring the certificate of two physicians, is substantially section 22 of the Act of 1842. Sections 2 and 3 are only restrictions as to the character of the physicians.

Section 12 requires certain relatives to confine such lunatic if of sufficient ability. This is the same with section 1 of the Title of the Revised Statute, and applies to a dangerous lunatic, as is quite apparent.

Section 6 gives the overseer of the poor a right to apply, in case of neglect of a committee or of friends, to a judge; in accordance with section 4 of the Title of the Revised Statutes.

But it will be seen on careful examination that nowhere in the statute is authority given on the mere certificate of two physicians approved by a judge to apprehend and confine anyone.

The Revised Statute above cited place the duty of confining dangerous lunatics on the committee and on relatives; in case of neglect or inability they place this duty on the overseers. The statute of 1874 puts the restriction that no confinement shall be made without the certificate provided for; but by no means declares that such certificate is sufficient authority.

Now if we look at the Revised Statute we shall see that it is not every lunatic who may be confined. It is one who is "furiously mad or so far disordered as to endanger," &c., section 1; and this idea is continued in the Act of 1874, sections 6, 8, 9, 11.

If we turn again to section 6 of the Act of 1874, which gives overseers the right to act in case of neglect of the committee, &c., and then inquire when the committee, &c., have neglected their

duty, we must turn to section 1 of the title of the revised statute to learn what their duty is. And that section has just been cited. It is when the lunatic is "furiously mad," &c. It appears to me that the revised statute wisely based the ground of confinement on danger to himself or others. And I see no authority to carry the restraint further than when such danger exists.

I am then not able to hold that the certificates of two physicians, approved by a county judge, are of themselves authority to apprehend and confine a lunatic. Such certificates and approval contain no order or direction to any one. They are addressed to no one. They command nothing. If they authorize a jailer to act and apprehend and confine they equally authorize any other person. And if we turn to section 2, which provides for the appeal, we shall find that if the jury do not find the appellant sane the "judge shall confirm the order for his being sent immediately to the asylum." What order can be confirmed where none exists?

I have gone over these statutes at length because I think a dangerous laxity has prevailed. In this very case the plaintiff was not confined by his committee, for there was none, or by his relative, or on the application of the overseer of the poor. In fact, no person authorized to act originated the proceeding. There was no evidence that he had not sufficient means, and none that he was furiously mad, or so far disordered in his senses as to endanger his own person, &c.

It seems to me that the statutes do not place the right in the hands of any man who may assume it, to apprehend and confine an alleged lunatic, or to initiate proceedings for that purpose.

I do not mean to say that the committee of a dangerous lunatic may not confine him. The Revised Statutes make that his duty. Before doing that, he possibly may obtain these two certificates and the judge's approval. Although the old principles gave him full power over the lunatic after "office found."

Nor do I deny the power of the relatives to do the same, having first obtained the certificates and approval; acting, I suppose, at their peril.

But when none of these parties act, then the proceeding must be under section 6. There must be decision of a judge that the lunatic is dangerous and a warrant accordingly.

I have stated these views, not because I dissent from the result reached by my brother Landon. I agree with him that the act of the Recorder was so far judicial that he is not liable to the plaintiff. I agree with him also, that, as this demurrer admits that the

physicians were negligent, they are liable for their negligence, as they would be for negligence in any other matter of their practice. Of course, what may be proved on their trial we cannot say.

SARATOGA, General Term, September, 1888.

INGALLS, *J.:*

I agree with my associates that the complaint does not contain the statement of a cause of action against the defendant Gould, and that the order of the Special Term which is to that effect should be affirmed with costs. A careful examination of the case has led me to the conclusion that the complaint is also defective, in failing to state a legal cause of action against the other defendants Russell and O'Leary, and that the order of the Special Term should also be affirmed as to those defendants, with costs. In determining the question whether the last named defendants can be held liable under the facts stated in the complaint, a distinction should be recognized between the present action and one brought by a person against a physician for mal-practice based upon the ordinary relation of patient and physician, because in such an action there exists at least, an implied agreement on the part of the physician based upon a consideration derived from the patient; that he possesses adequate skill, and will faithfully apply it in the treatment of such patient. Whereas in the present case no such relation exists and consequently, it would seem, no such obligation, is imposed. Such defendants were physicians, but their relation to the proceeding by which the plaintiff was for a few days detained for medical treatment, was created by Chapter 446 of the Laws of 1874, entitled "An act to revise and consolidate the statutes of the State, relating to the care and custody of the insane; the management of the asylums, for their treatment and safe keeping and the duties of the State Commissioner in Lunacy." The legislature seem to have intended to create, by such Statute, a complete system in regard to the care and treatment of the insane, without regard to whether such malady had developed in the patient a type which was apparently temporary or permanent, mild or violent. The first section of such Act provides as follows: "Section 1—No person shall be committed to or confined as a patient in any asylum, public or private, or in any institution, home or retreat, for the care and treatment of the insane, except upon the certificate of two physicians under oath, setting forth the insanity of such person. But no person shall be held in con-

finement in any such asylum *for more than five days* unless within that time such certificate be approved by a judge or justice of a Court of Record of the county or district in which the alleged lunatic resides, and said judge or justice may institute inquiry and take proofs as to any alleged lunacy before approving or disapproving of such certificate, and said judge or justice may *in his discretion*, call a jury in each case to determine the question of lunacy." The second section contains the following: "Section 2. It shall not be lawful for any physician to certify to the insanity of any person for the purpose of securing his commitment to any asylum, unless said physician be of respectable character, a graduate of some incorporated medical college, a permanent resident of the State, and shall have been in actual practice of his profession for at least three years. And such qualifications *shall be certified to by a judge of any Court of Record.* No certificate of insanity shall be made except after a personal examination of the party alleged to be insane, and according to forms prescribed by the State Commissioner in Lunacy, and every such certificate shall bear date of not more than ten days prior to such commitment." These defendants had each received from the County Judge of Albany County a certificate of qualification as prescribed by such statute, and were therefore authorized to make the examination and to certify in regard to the mental condition of the plaintiff, whether the type of insanity with which the plaintiff was afflicted, appeared mild or violent at the time, as it was within their province to determine whether restraint and treatment was necessary to prevent the development in the plaintiff of a more violent and dangerous type of such disease. The defendants having derived their authority to act in the premises from such statute, and their coöperation in carrying out the provisions thereof being a part of the machinery by which such system became efficient, the acts of the defendants in making and certifying such examination should be regarded in their nature official, rather than merely professional; and considering the character of the duties which they performed, and the manner they were required to discharge the same, I think it may be properly held that they acted in at least a quasi judicial capacity. They were called upon to ascertain and determine whether the plaintiff was insane to such an extent as to require restraint and treatment, and in determining such question, they were compelled, by such statute, to make a personal examination of the plaintiff, and from the evidence thus disclosed, and such other facts and circumstances

as were brought to their knowledge to conclude in regard to the mental condition of the plaintiff, and the necessity of subjecting him to restraint and treatment, and they were required to weigh the evidence and to deduce therefrom a conclusion in regard to the mental condition of the plaintiff, and in the event that they adjudged him insane, they were required by such statute to make a certificate under oath setting forth the insanity of such person. It will be perceived by referring to the statute, that upon the determination of such physicians, and the certificate which they are authorized to make the person so adjudged insane may be restrained for the purpose of treatment, for a period not exceeding five days, without the approval of a judge or justice of a Court of Record. So it would seem that by force of such statute, such certificate may be regarded in a certain sense a mandate by which the determination of such physicians may be carried into effect. It seems therefore, but reasonable to conclude that the legislature intended to confer upon such physicians powers, exceeding those possessed by a mere expert or by a physician in the ordinary treatment of a patient under a private retainer. It will be further perceived that such examination, and the certificate issued thereupon, are by force of such statute made the basis for the action of the judge or justice, whose approval of such certificate is by the statute required in order to continue the detention and treatment of such insane person beyond five days. In the present case the certificates were presented to the defendant Gould who was then Recorder of the city of Albany, and approved by him April 15, 1887, and before the plaintiff was arrested and committed as an insane person. It would seem that the certificates made by the defendants should also be regarded as privileged communications, they were intended for, and actually constituted the basis upon which the recorder acted. Perkins vs. Mitchell, 31 Barb., 462. In that case Justice Emott, at page 466, remarks: "To give to a statement made by a physician, which would otherwise be criminatory and libelous, a privileged character, he must not only utter it as a medical man, but it must be made in the discharge of a duty, and to a person, who has or is engaged in a corresponding duty in reference to the subject matter." The learned Justice cites in support of the principle thus enunciated. Harrison vs. Bush, 32 Eng. L. and Eq. Rep., 173; Van Wyck vs. Aspinwall, 17 N. Y., 190. The doctrine thus stated seems applicable to the case under consideration, and to shield the defendants Russell and O'Leary from liability in this action; in which no malice is alleged. See also

Bradley vs. Fisher, 13 Wall., 335. The defendant Gould in his official capacity approved of such certificates and for such act he is prosecuted by the plaintiff. As such recorder, he possessed all the powers of a justice of the Supreme Court at Chambers. Laws of 1872, Chapter 284, Section 10. In approving of such certificate he was required to examine them, and to consider and pass upon the facts therein stated, with the view to determine their sufficiency, and to conclude in regard to the necessity of subjecting the plaintiff to restraint and treatment as an insane person. Manifestly in discharging such duty he was required to exercise judgment and discretion in passing upon the merits of such application, and in discharging such duty he acted in a judicial capacity. It is insisted that the statute made it incumbent upon the recorder to summon a jury to pass upon the insanity of the plaintiff, such is not the case, the statute provides as follows: "May in his discretion call a jury in each case to determine the question of lunacy." It was discretionary with him whether or not to call such jury, as the statute is clearly permissive and not mandatory. The wisdom displayed in so framing said statute is apparent, as in some cases the facts presented would doubtless disclose a case so clear that the aid of a jury would be unnecessary, and the delay and the expense consequent upon calling them should be avoided, while in other cases, a degree of doubt might exist, which would render it quite proper to resort to the jury. Considering the nature of the proceeding, the requirements of such statute, the character of the duties which it imposed upon such defendants, and the manner the duties were required to be performed by them, I am persuaded that all of said defendants should be regarded as having acted so far in a judicial capacity, as to be entitled to immunity from civil prosecution; especially so as the complaint contains no charge of malice against either of the defendants. In view of the law upon this subject as it exists it seems allowable to hold that such protection extends not only to the judge while engaged in the trial of a civil action in court, but also to a magistrate or other person, when engaged in conducting a proceeding, which required the performance of duties judicial in character, and when the proceeding has been created by the statute which authorized such magistrate or other person to discharge the duty, and while acting within the limits of the authority conferred. In Perkins vs. Mitchell, supra, at page 471, Justice Emott further remarks upon this subject. "This is not confined to trials of civil actions or indictments, but includes every proceeding before a

competent court or magistrate in the due course of law or the administration of justice, which is to result in any determination or action of such court or office." Weaver vs. Devendorf, 3 Den., 117, Judge Beardsley says, at page 120: "The assessors were judges acting clearly within the scope and limit of their authority, they were not volunteers but the duty was imperative and compulsory; and acting, as they did in the performance of a public duty, *in its nature judicial*, they were not liable to an action, however *erroneous or wrongful* their determination may have been. But I prefer to place the decision on the broad ground that no *public office* is responsible in a civil suit for a judicial determination however erroneous it may be and however *malicious* the motive which produced it. Such acts when corrupt may be punished criminally. The rule extends to judges from the highest to the lowest; to jurors, and to all public officers; whatever name they may bear in the exercise of judicial power." The opinion expressed in that case, received the approval of the entire court, and seems to have a direct and forcible bearing upon the case we are considering. In that case the defendants were *assessors* deriving their authority from a statute; in this case the defendants derived their authority from a statute, and I think the duties which they were required to perform were as clearly judicial in their nature, as were those which devolved upon the assessors in the case referred to. Neither the assessors or the defendants in this action, were compelled to accept the office, yet having accepted they were bound to discharge the duties thereof.

In determining whether an act is judicial in its character, we are to regard the nature of such act, rather than the place where it is performed. The complaint not only omits to charge either of the defendants with malice, but fails to allege that either participated in such arrest or detention other than by making and approving of such certificates, and if such defendants had jurisdiction of the subject matter, and acted in a judicial or quasi judicial capacity they cannot be held liable in this action. (Hunt vs. Hunt, 72 N. Y., 218.) At page 229 Judge Folger remarks: "So that there is a more general meaning to this phrase 'subject matter' in this connection than power to act upon a particular state of facts. It is the power to act upon the general and so to speak, the abstract question, and to determine and adjudge whether the particular facts presented call for the exercise of the abstract power." The complaint contains sufficient to show by what authority the defendants acted, and the source from which it was

derived and the extent thereof, and the character of the duties which they performed. The complaint contains the following statements:

And the plaintiff further alleges, on information and belief, that his said arrest and imprisonment was caused and secured by the defendants, by means of certain certificates and approval thereof, prepared and issued by them, against the plaintiff for his arrest, as follows: that is to say, the certificates of said Selwyn A. Russell, and Daniel V. O'Leary, subscribed to and made by them under oath before John Gutman, police justice and justice of the peace of the city and county of Albany, on the 14th day of April, 1887, certifying and declaring, in effect, that they were residents of the city of Albany, in the county of Albany, and were graduates of the Albany Medical College, and had practised as physicians the said Selwyn A. Russell for ten years, and the said Daniel V. O'Leary for fifteen years, and that their qualifications as medical examiners in lunacy had been duly attested and certified by Hon. John C. Nott, County Judge of the County of Albany; that on the 13th day of April, 1887, they personally examined the plaintiff, said Alfred Ayers, of the city of Albany, in said county; that he was a man about sixty-three years of age, was married, and was by occupation a carpenter, and that he was insane, and a proper person for care and treatment under the provisions of Chapter 446 of the Laws of 1874; that the grounds whereon they formed this opinion, separately stated, although they acted in concert together, were substantially the same, viz.: that plaintiff was under delusive beliefs with respect to his wife, and under delusive ideas with respect to his wife and daughter, and that there were no reasons for believing that such delusions or any of those ideas, were founded in fact. And the plaintiff alleges, on information and belief, that the said defendant, Anthony Gould, as Recorder of the city of Albany, did, on the 15th day of April, 1887, fully and formally accept, adopt, endorse and approve the said verified certificates of said Selwyn A. Russell and Daniel V. O'Leary, and their said opinions, and the said grounds thereof, as sufficient in matter of fact and in form of execution for the arrest and confinement of the plaintiff as insane, and a proper person for care and treatment under the provisions of Chapter 446 of the Laws of 1874." Such statement of facts, considered in connection with the provisions of the statute under which the defendants acted, and which is referred to by the plaintiff in his complaint, are sufficient to show that the defendants had acquired jurisdiction of

the subject matter, and were therefore authorized to discharge the duties which they performed, which were judicial in their character, and consequently the plaintiff failed to state a cause of action entitling him to recover herein against the defendants or either of them. (Stewart vs. Hawley, 21 Wend. Rep., 552; Bradley vs. Fisher, supra, Lange vs. Benedict, 73 N. Y., 12; Harrison vs. Clark, 4 Hun, 685; Harmon vs. Brotherson, 1 Den., 537; Hall vs. Munger, 5 Lansing, 105; Burnstedd vs. Reed, 31 Barb., 665.)

The following allegation in the complaint indicates the theory upon which the plaintiff seems to rely to maintain this action:

II. And the plaintiff further alleges on information and belief, that said verified certificate and said approval thereof, in manner and form aforesaid were each and all of them, made and issued by the defendants, *without proper and ordinary care and prudence*, and without due examination, inquiry and proof, into the mental and physical condition of plaintiff's health, and without due examination, inquiry and proof, into the fact whether the plaintiff was sane or insane, and that they were not made and issued in form, substance and effect, in compliance with law, or in compliance with the requirements of said Chapter 446 of the Laws of 1874, and were invalid." Such statements are very general, and partake more of the characteristics of conclusions than of the statement of material facts, and are more objectionable from the consideration that they constitute the gravamen of the pleading. Such statements seem to imply that the defendants exercised a certain degree of care and prudence, but not to the extent which the plaintiff deemed necessary, according to the standard of duty which he has chosen to adopt.

If the defendants had acquired jurisdiction of the subject matter, and acted judicially in discharging their duties, the law exempts them from liability in a civil action, even though they may have acted without exercising proper and ordinary care and prudence and without due examination and inquiry in regard to the mental and physical condition of the plaintiff. Lange vs. Benedict, 73 N. Y., 12; Weaver vs. Deavendorf, supra; Cunningham vs. Bucklin, 8 Cowen Rep., 178. It would strike the judicial mind as something novel, to have exhibited as the statement of a cause of action in a complaint; that a judge while engaged in the trial of an action in court, had decided a question of fact, or of law, without due examination and inquiry, and without the exercise of ordinary care and prudence, and upon such a statement to claim and award of damages. And yet the com-

plaint herein, amounts to little more when considered in the light of the law applicable to the subject involved. The demurrers interposed by the defendants do not help the plaintiff's case by way of admission as only facts which are material, and well pleaded, are admitted by a demurrer. The contention of the plaintiff does not seem sound that the facts alleged in the complaint are to the effect that he was through the acts of the defendants deprived of his liberty without due process of law. The legislature possessed the power to provide by statute for the care, custody and treatment of the insane, and to prescribe the method by which it should be accomplished. It has been suggested that the defendants should seek their vindication at the hands of the jury, if they are entitled to it. Certainly not until the plaintiff alleges in his complaint a valid cause of action against them. If judges and other public officers, whose duties are in their nature judicial are to be subjected to civil prosecution by any litigant, or other person, who is dissatisfied and incensed by the action of such officers, it may be feared that the effect will soon be, to prevent, or impair, fearless, independent, and efficient discharge of duty, by such officials, not so much from the apprehension that damages would ultimately be recovered against them, but on account of the vexation and expense, which would attend such a prosecution. It is obvious that the policy of the law is opposed to such action.

TRANSACTIONS OF THE NEW ENGLAND PSYCHOLOGICAL SOCIETY.

At a stated meeting of the New England Psychological Society held in Boston, Tuesday, January 8th, 1889, papers were read by Drs. E. French of the Asylum for Insane, Concord, N. H., and B. R. Benner of Lowell.

The subject of Dr. French's paper was "The Prognostic Value of Certain Habits and Delusions of the Insane," and the following were his conclusions:

I. The "rhyming habit" (in which the patient persistently rhymes either in writing or conversation or both) if persistent and long continued is prognostic of a condition of incurability.

II. The "writing habit" (in which the patient writes voluminously and continually) if persistent, is indicative of the same termination, but only when the writing is meaningless and incoherent in character.

III. The habit of fantastic decoration such as peculiar arrangements of the hair, the use of buttons and bright pieces of metal, embroideries in bright threads in profusion and in inappropriate places, bright rags and pieces of colored paper, or any other material used for fantastic adornment, is prognostic of a chronic conditon, and of incurability.

IV. The systematized and automatic movements of the *lower limbs* in acute mania and in the exacerbations of maniacal excitement following cases of chronic mania, if persistent and continued for any length of time, are prognostic of death from exhaustion.

V. The class of delusions called "electric delusions" (when dependent on morbid sensations,) are of neuralgic origin and character, and are prognostic of incurability.

The following is an abstract of Dr. Benner's paper on "Cigarette Smoking, Especially in the Young."

Cigarette smoking in these times has come to be a matter of considerable gravity. Use of cigarette and ratio of increase by manufactories rapidly extending. Larger part consumed by young men and boys. As to quality used in them, or how it is modified by artificial means it is difficult to obtain knowledge.

It is said that the lighter colored tobaccos are bleached by means of harmful compounds; that the cheaper grades are made of tobacco used before in another form, and that some varieties contain opium.

The cigarette smoker is frequently an inhaler. Immediate effect of this in the novice is slight giddiness. Smoke is probably absorbed in the main air passages, irritates mucous membranes, and adds to the dangers of the cigarette.

Dr. Decaisne was convinced that tobacco interrupted the nutritional functions generally and induced some mental sluggishness.

The writer tried to make some original investigations among the schools of Lowell, but met with indifferent success. The bulk of testimony showed a difference in favor of non-smokers, the smokers being paler, thinner, more restless, less vigorous and less proficient in study. The age of 145 smokers average 10 years. Estimated proportion of smoking boys to whole number 10 to 12 per cent, but this is probably an under estimate.

The reader had seen several cases and gathered from them these conditions: a marked motor restlessness, an over-acting excited heart, a toneless pulse, a pale and anxious countenance, a general muscular weakness with shortness of breath on exercise.

From 30 to 50 per cent of candidates for admission to Government Training Schools are rejected because of heart weakness from the use of tobacco.

The action of the heart is rapid, impulsive, violent and has little reserve power. Patients show a lack of nervous poise, and have reached a lower physical plane than their companions.

The nervous organization grows more susceptible with succeeding generations to tobacco influence.

The pathology of this question is complex. Great vital depression ensues from the acute action of tobacco, but if persisted in, the system becomes tolerant, and finally dependent.

The sympathetic system appears to suffer most, interfering with nutritive function, and lowering vital forces. The constructive activity essential to growing youth is hindered.

This applies to excess, but in young boys a little is excess. No law would probably be adequate to prevent the young from obtaining tobacco. The more hopeful plan lies in home training and elementary instruction in the school-room. The present text-books for schools contain useful information on tobacco and alcohol.

Systematic education in physical cause and effect will do more than moral precept. Of first importance is the prevention of the early formation of the smoker's habit. The medical practitioner is under obligation to exert an influence, and should acquaint parents of the danger to their children lurking in the cigarette.

After the conclusion of Dr. Benner's paper, Dr. J. P. Brown, Superintendent of the Lunatic Hospital at Taunton, Mass., read "A Report of a Case of General Paralysis of fourteen and one-half years' duration," of which the following is an abstract:

Mrs. M. G. N., age 51, American, married; mother of six children; admitted to Taunton Lunatic Hospital July 8, 1874.

She had always been temperate, and her moral character was above suspicion. No heredity. Duration of insanity before admission, one year. Supposed cause, death of children and menopause.

About one year before admission had a slight attack of paralysis and speech was somewhat affected. She had delusions and thought she was operated upon by mesmeric influences.

October, 1874. Is depressed at times, at other times is chatty and moderately cheerful.

November, 1875. Has been violent and much disturbed.

During the summer of 1876 she had the parole of the grounds most of the time. On August 26th of that year it is recorded that she has been disturbed, lawless, imperious in manner, and overbearing to other patients.

1880. Has less self-control, goes out but little, as she is not willing to walk with other patients.

1883. Has a high appreciation of herself, though no delusions of grandeur. Has done some pictures in oil which she thinks are works of high art. Speech is thick and she mumbles her words. Fond of dress, but careless of her clothing.

1886. Increasing dementia and self-satisfaction. Laughs and says she feels "first-rate." Habits somewhat filthy; articulation more defective; locomotion impaired; no distinctive irregularity of pupils. At times much tremor of the hands.

November, 1887. Incoherent, destructive to clothing; great impairment of speech and locomotion. Happy and contented. Habits untidy.

January 16th, 1888. She was found this morning with paralysis of left arm and head drawn to right side; pupils moderately dilated; pulse 66, full and bounding, semi-conscious; deglutition difficult.

25th. Continued partially conscious, gradually failing, and died to-day.

The features of special interest in this case were the slow development and progress of both mental and physical symptoms, and consequent long duration of the disease.

DISCUSSION.

Dr. G. Brown said that the peculiarities mentioned by Dr. French were common among the feeble-minded. It had impressed him that cigarette smoking was injurious to the young. We should be better off physically to leave it alone.

Dr. Hall said that where cases of general paralysis are prolonged, it is not uncommon to meet with some improvement, then to find them stationary for some time, and then to decline rapidly. He thought there were more cases of fantastic dress in public asylums than private ones.

Dr. Benner said he would commend the pains-taking work and photographs of Dr. French. Photography can be of great service.

Dr. Cowles said that Dr. French had chosen a good subject, as such symptoms are not often dwelt on. Are these symptoms of systematized delusions or paranoia? These photographs show marked expression of exaltation. He supposed Dr. French used chronicity in the sense of incurability.

These persons have gradually lost the intellectual or higher power, and are at the mercy of the lower power.

Loss of association of ideas prevails and patients catch up the last word and harp upon it. It is the same with puns and rhymes. Striking illustrations of what might be called the "habit insanities." Loss of power of attention, loss of power of change of attention. They are governed by attractive attention.

Passing over forwards to chronic stage, by accident a new habit of mind is found—mind runs in habitual action acquired during acute stage.

In studying mental action in decline, or old age, much psychology may be learned.

Dr. J. P. Brown said in reply to what was said by Dr. Hall, that his case of general paralysis was steady and persistent.

Dr. T. W. Fisher said that different institutions vary in the amount of decorations of patients they allow. Cases of rhyming habit are not common. Electric cases are ones of systematized delusions, similar to cases of dust, powder and sand thrown on patients. In regard to cigarette smoking, he knew of one or two cases where this was the assigned cause. Excessive indulgence in smoking in one or two cases produced acute delirium.

In his experience the duration of cases of general paralysis was longer than Dr. B. mentioned. It was at one time three years—average age thirty-eight. He had seen a few extremely long cases,

one lasting ten years. Had seen long cases which were preceded by spinal symptoms. Question in such cases if the general paralysis is grafted on to locomotor ataxia or if they begin independently.

Dr. Henry R. Stedman, of Boston, recalled one case of acute insanity, in which the rhyming propensity was noticeable. In this instance it was incessant and lasted a day or two. He had seen the practice of self-decoration in a few cases of periodical insanity of short duration, with intervals of sanity which lasted several years. As these attacks were sudden, quite short—a few months—and practically acute in their nature, this propensity could hardly be considered as an illustration of habit insanity. These were the only exceptions which he could recall to the rule which Dr. Prince had formulated, that these habits were pathognomonic of chronic insanity.

Dr. Brown's case was interesting as possibly belonging to a class of general paralytics which resemble cases of paralytic insanity in being ushered in by a "stroke," occurring considerably past the usual age for general paralysis, and in being chiefly characterized by dementia from the outset. The long duration of cases of general paralysis was often accounted for by the great length of the prodromic period, a point which he believed had only lately received attention. Dr. Savage, of the Bethlem Hospital, had recently laid much stress on this point, having found in a very large number of cases that prodromic symptoms had existed for eight, nine, ten, or even twelve years. Dr. C. F. Folsom had also reported in detail at the Boston Medico-Psychological Society, a number of cases illustrating this fact. Other cases of long duration were those which were of a mild nature throughout, the patients being simply demented and to a large extent free from the great source of exhaustion, maniacal excitement. The amount and kind of attendance and other care which the patient could command had, also, not a little to do with the duration of the disease. He thought the average duration among private patients in asylums would, on this account, be found to be higher than among public charges.

Dr. Folsom mentioned very early cases. The care that it is possible to give patients, an important factor—also character of disease—if few convulsions, and not much maniacal excitement. He mentioned cases of general paralysis lasting seven and four years.

Dr. Knapp was inclined to agree with Dr. Cowles in what he

said of systematized delusions in paranoia. Electric and partial delusions were found in paranoia, but decorative delusions were found in other forms. Certain cases reported in *Archiv. für. Psychiatrie*, of excitement and acute mania, which were explained by loss of higher powers and development of lower powers. He should not discriminate much between symptoms brought on by cigarette smoking in old or young.

Dr. Nims said that in his experience cases of rhyming had been cases of acute mania, like singing, shouting, &c. He did not regard rhyming, &c., as a symptom of chronicity. In regard to decoration he had not seen much of it in his hospital, because they did not allow it, but when seen, it was among queens or kings, who would insist on putting on some sign of rank. Electric delusions were similar to many other delusions, such as bones being broken, powder sent down through floors, and are usually indicative of incurability.

In regard to Dr. Brown's paper on paresis, in reckoning length of time, prodromal stage was not taken into account. At Northampton they now regard the duration as longer than three years.

Dr. G. P. Bancroft said, in regard to Dr. Brown's remarks in reference to length of time in a case of general paralysis, he did not remember any that had been over six years or less than two. This was probably due to lack of early or careful observation. In his part of the country cases of general paralysis do not get to the asylum until the disease is advanced. A case lately occurred in proving a will bearing on this point. The counsel for the prosecution endeavored to throw discredit on the witnesses, one of whom, a physician, had general paralysis at the time of the trial. He was in practice years after signing the will, and the question arose, did the disease exist at the time of signing the will? He doubted whether any benefit arises to the patient in breaking the habit of decoration, as it occurs late in the disease, and although it is unpleasant to look at, still the patient may get a little comfort out of it.

Dr. Moulton mentioned one case of general paralysis which lasted more than eight years. It had been his habit not to allow decoration, the idea being that if patients are allowed to depart from the practices of sane people it will strengthen their insane tendencies.

At the same meeting a committee was appointed consisting of Drs. E. Cowles, J. P. Brown and T. W. Fisher to select subjects

one lasting ten years. Had seen long cases which were preceded by spinal symptoms. Question in such cases if the general paralysis is grafted on to locomotor ataxia or if they begin independently.

Dr. Henry R. Stedman, of Boston, recalled one case of acute insanity, in which the rhyming propensity was noticeable. In this instance it was incessant and lasted a day or two. He had seen the practice of self-decoration in a few cases of periodical insanity of short duration, with intervals of sanity which lasted several years. As these attacks were sudden, quite short—a few months—and practically acute in their nature, this propensity could hardly be considered as an illustration of habit insanity. These were the only exceptions which he could recall to the rule which Dr. Prince had formulated, that these habits were pathognomonic of chronic insanity.

Dr. Brown's case was interesting as possibly belonging to a class of general paralytics which resemble cases of paralytic insanity in being ushered in by a "stroke," occurring considerably past the usual age for general paralysis, and in being chiefly characterized by dementia from the outset. The long duration of cases of general paralysis was often accounted for by the great length of the prodromic period, a point which he believed had only lately received attention. Dr. Savage, of the Bethlem Hospital, had recently laid much stress on this point, having found in a very large number of cases that prodromic symptoms had existed for eight, nine, ten, or even twelve years. Dr. C. F. Folsom had also reported in detail at the Boston Medico-Psychological Society, a number of cases illustrating this fact. Other cases of long duration were those which were of a mild nature throughout, the patients being simply demented and to a large extent free from the great source of exhaustion, maniacal excitement. The amount and kind of attendance and other care which the patient could command had, also, not a little to do with the duration of the disease. He thought the average duration among private patients in asylums would, on this account, be found to be higher than among public charges.

Dr. Folsom mentioned very early cases. The care that it is possible to give patients, an important factor—also character of disease—if few convulsions, and not much maniacal excitement. He mentioned cases of general paralysis lasting seven and four years.

Dr. Knapp was inclined to agree with Dr. Cowles in what he

said of systematized delusions in paranoia. Electric and partial delusions were found in paranoia, but decorative delusions were found in other forms. Certain cases reported in *Archiv. für. Psychiatrie,* of excitement and acute mania, which were explained by loss of higher powers and development of lower powers. He should not discriminate much between symptoms brought on by cigarette smoking in old or young.

Dr. Nims said that in his experience cases of rhyming had been cases of acute mania, like singing, shouting, &c. He did not regard rhyming, &c., as a symptom of chronicity. In regard to decoration he had not seen much of it in his hospital, because they did not allow it, but when seen, it was among queens or kings, who would insist on putting on some sign of rank. Electric delusions were similar to many other delusions, such as bones being broken, powder sent down through floors, and are usually indicative of incurability.

In regard to Dr. Brown's paper on paresis, in reckoning length of time, prodromal stage was not taken into account. At Northampton they now regard the duration as longer than three years.

Dr. G. P. Bancroft said, in regard to Dr. Brown's remarks in reference to length of time in a case of general paralysis, he did not remember any that had been over six years or less than two. This was probably due to lack of early or careful observation. In his part of the country cases of general paralysis do not get to the asylum until the disease is advanced. A case lately occurred in proving a will bearing on this point. The counsel for the prosecution endeavored to throw discredit on the witnesses, one of whom, a physician, had general paralysis at the time of the trial. He was in practice years after signing the will, and the question arose, did the disease exist at the time of signing the will? He doubted whether any benefit arises to the patient in breaking the habit of decoration, as it occurs late in the disease, and although it is unpleasant to look at, still the patient may get a little comfort out of it.

Dr. Moulton mentioned one case of general paralysis which lasted more than eight years. It had been his habit not to allow decoration, the idea being that if patients are allowed to depart from the practices of sane people it will strengthen their insane tendencies.

At the same meeting a committee was appointed consisting of Drs. E. Cowles, J. P. Brown and T. W. Fisher to select subjects

for collective investigation in mental pathology and clinical history by the medical officers of New England asylums.

It was also voted that a committee of three be appointed to prepare resolutions on the death of Dr. Ira Russell, of Winchendon. The committee later reported the following, which was unanimously adopted:

Whereas, It has pleased Divine Providence to remove from this society our late member Dr. Ira Russell;

Resolved, That we hereby express our deep appreciation of his worth, and sincere sympathy with his family in this sad hour of bereavement;

Resolved, That these resolutions be entered on the records of the society, and that a copy of the same be transmitted to the family of the deceased.

Reported by WALTER CHANNING, M. D., Secretary.

ABSTRACTS AND EXTRACTS.

The Relation Between Trophic Lesions and Diseases of the Nervous System.—Seguin, in a paper read before a joint meeting of the Association of American Physicians and the American Physiological Association, Sept. 20, 1888,* refuses to recognize as trophic lesions those "occurring in parts whose sensibility is more or less reduced by the nervous disease, and which are exposed to the action of traumatic and infectious influences." As instances of this class he mentions ulcerations, fall of nails and hair, altered appearance of skin and nails, arthropathies, fractures of bones, and ulcerations of cornea after disease or injury to the trigeminus. He would only admit as trophic lesions "histological alterations set up directly and fatally by the nerve disease, without the intervention of accidental or extraneous causes." Under this head he includes herpes and the muscular atrophies occurring in consequence of disease of the anterior cornua of gray matter in the spinal cord or of the peripheral nerves. He suggests that these changes may be accounted for by the hypothesis of a law of interdependent life in continuous tissues.

There is doubtless room for difference of opinion in regard to the lesions of which he denies the trophic nature, but that there is no element in their causation except insensibility to injury and consequent lack of protection. Ulceration of the cornea does not follow paralysis of the facial nerve, with the consequent exposure of the eyeball to injurious influences; it does not occur in hysterical hemianæsthesia, and is by no means universal in complete insensibility due to lesion of the fifth nerve. When a patient fractures the bones of the forearm in turning over in bed, as in Charcot's case, of tabes, or blisters a hand paralyzed from injury to the nerves by immersing it in water, not uncomfortably warm to a healthy skin, there is something more than simple traumatism at work. Nor is it plain how falling of the hair and glossy skin should be due simply to extraneous influences. The fact that the cornea will not ulcerate if the air be excluded, or that the bones will not break if kept perfectly motionless, does not prove them to be healthy, nor is it probable that, in the last case, at least, histological changes would be lacking, if they were looked for. Till some better term is found for these changes, it will probably not be very much amiss to call them trophic. W. L. W.

The Diagnosis and Surgical Treatment of Tumors of the Cerebrum.—Seguin and Weir (*American Journal of the Medical Sciences*, July, August and September, 1888,) report a case which came under Dr. Seguin's care in August, 1887, with a history of spasms beginning in 1882, in the right side of the face and neck, which developed in 1885 into full epileptic seizures, which began with twitching of the right side of the face and right arm followed by loss of consciousness and general convulsions. When the attacks were incomplete there was aphasia without loss of consciousness. At the time of examination there was marked paresis of the right lower facial muscles, and the right hand was slightly weaker than the left. Lower extremities not

* *Journal of Nervous and Mental Disease*, September, 1888.

paralyzed. No ocular symptoms. Knee jerk slightly exaggerated on right side. Very slight tactile anæsthesia of right fingers.

Diagnosis was made of tumor of the left motor zone in the facial centre, and its removal was undertaken by Dr. Weir, November 17, 1887, after failure of treatment with large doses of iodide of potassium. The tumor, a sarcoma, about the size of a large almond, was found in the white matter, impinging upon the gray substance at the bottom of the precentral sulcus, and was lifted out with a Volkmann's spoon. The wound was drained, antiseptically dressed, the portions of bone removed by the trephine being replaced and healed by first intention, with union of the replaced bone.

The operation was followed by complete right hemiplegia with nearly complete aphasia. The latter symptom disappeared almost completely, within four days, and the patient was able to sit up on the 4th of December. The history of the case is brought down to June 4, 1888. At that time the patient had the appearance of perfect health. He sometimes hesitated for a word in speaking, and there was some agraphia at an examination made a few days before. There was some paresis of the right cheek and lips, and the right hand was weaker than the left. Walk, patellar reactions and sensibility normal.

The history of the case is followed by an exhaustive discussion by Dr. Seguin of the diagnosis of the presence, situation, depth, solitude and nature of cerebral tumors, and by Dr. Weir of the technique of operations for their removal. W. L. W.

Senile Insanity.—Prof. Fürstner, of Heidelberg, *Arch. f. Psychiatrie* XX, II, 1889, discusses the insanity occurring in old age, its frequency, etiology, types, &c. There is no fixed point at which senility begins, as puberty marks the end of infancy, and it is not correct to consider the psychoses occurring in advanced life as necessarily senile ones. Out of one hundred and seventy-eight cases of insanity commencing after the fiftieth year, observed by him in his clinic, only sixty-seven could be designated properly as "senile." Adding to these twenty-eight cases observed in his private practice, he has had ninety-five cases, the analysis and study of which form the subject of his memoir.

Of these ninety-five, fifty-one were men, and forty-four women. This predominance of males, in spite of the additional etiological factor of the climacteric in the female sex, is accounted for by Fürstner, by the greater prevalence of organic brain troubles in men owing to their greater liability to atheromatous changes in the vessels, &c. Heredity was not apparently as active a factor as might be supposed—in only 20 per cent of his cases was it discovered. In these the morbid transmission seemed to be more frequently of weakness in the circulatory system than in the central nervous system. Other apparent causes were overwork, trouble, separation, bodily ailments, the not infrequent intemperance, beginning in old age, &c., &c.

As regards the form of the disorder, the author recognizes three groups, namely: simple functional psychoses, more or less modified by senile conditions; second, the same forms combined with defective intellectual states; and third, psychoses with somatic, and more especially cerebral symptoms. In the first group melancholia predominates, almost always complicated with hypochon-

dria, which may temporarily form the leading symptom. Simple melancholia in the aged is often neglected by those about and its dangerous nature is underestimated. The patients have often remissions and sudden changes in the symptoms, sometimes for days they may appear their normal selves. In the ordinary melancholiacs, suicidal tendencies are usually preceded and in a measure foretold by increased depression, &c., but this warning signal may be absolutely wanting in senile cases. The apparent slight degree of psychic disturbance that exists makes many of these cases the more dangerous, as their tendencies are apt to be overlooked or unforeseen. The sleeplessness in these cases is likely to be obstinate, as might be inferred from the lesser amount of sleep needed by many old persons, and the loss of appetite and disinclination to food and drink may be increased by delusions of poisoning or of expense, &c.

Senile cases of agitated melancholia are still more difficult to treat, and can be cared for at home only when the symptoms are comparatively mild. The tendency to constant restlessness is more marked in these than in ordinary cases of melancholia agitatas. Suicidal tendencies, while not to be neglected, are not as marked as in senile simple melancholia, but the danger to life from abstinence from food and exhaustion makes the progress especially unfavorable. Stuporous melancholia is not frequent in the old and hardly needs particular consideration.

Mania is not uncommon as a functional psychosis of senility, and in the author's observations was regularly associated with intellectual defeat. In consequence of the heightened sexual irritability these cases not infrequently come before the tribunals, since their impulses are very little checked by any thought of consequences. In more than one way senile mania resembles that form that is characteristic of the puerile period.

Hallucinations of the senses are not at all rare in the insanity of the aged, and those of hearing are the most frequent, and are favored by the senile pathological processes in the auditory apparatus. The subjective sounds accompanying for years, sometimes the advancing failure of hearing, pass into hallucinations, and misunderstandings, &c., due to auditory defect from the basis of delusions, the more readily on account of the distrustfulness of so many of the aged.

Prof. F. goes at length into the description of a form of insanity which has not been fully described before, and which he considers from the transition between the functional and organized types of senile insanity. On the psychic side the symptoms closely resemble those of hallucinatory confusional insanity such as is often met with in puerperal cases, but with these there are, in the initial stage, numerous bodily symptoms, such as fever, heightened reflex irritability, inequality of the pupils, slight hemiparesis, aphasia, headache, &c. These in several of his cases led at first to the erroneous diagnosis of incipient meningitis. The duration of this stage is variable, but it commonly lasts weeks or months with varying intensity of the symptoms, especially the motor excitement. In some cases after this stage passes off the patients gradually clear up mentally, their illusions and hallucinations disappear and their relations to their environment becomes more and more normal. In others this stage passes into a permanent dementia, but taking all the author's cases together the prognosis of this type of senile insanity is not apparently as unfavorable as that of melancholia of either the simple or the agitated form.

Of eleven marked cases observed by the author six recovered, one was decidedly improved, two remaining unhealed and two succumbed to pneumonia. He considers that these facts support the view that this type of insanity is due to cerebral circulatory disorders set up by atheromatous alterations and the altered nutrition of the nerve centres play a large part in the production of the symptons. His treatment consisted in the use of digitalis either alone in doses of .03 grams (a little less than half a grain) several times daily or combined with opium in the same dose. The cardiac excitement was almost invariably relieved, and as the case advanced the digitalis was reduced and the opium gradually increased. With this treatment the constipation was not increased and the general nutrition slowly improved. Alcohol, usually cognac, was also given in small quantities and found useful. Besides opium, paraldehyde was used as a hypnotic, but chloral was considered objectionable on account of the condition of the circulatory system.

General paralysis of the insane, according to Fürstner, is very rare after the fiftieth year, and he doubts its ever occurring in persons over sixty, while he admits that cases do occur at an advanced age that have a strong resemblance to it. The only point of distinction, however, which he gives at length, is the combination of cerebral and spinal lesions in progressive paresis, which he does not find in his similar senile cases. A small number of cases in which intellectual defect was throughout the dominant symptoms are classed as simple senile dementia.

Thirty-three of the author's ninety-five patients were cases of simple melancholia, of these eleven recovered. Eighteen were cases of melancholia agitata, with five cures; nine of mania, of which three recovered. Three cases out of nine of delusional insanity (*Verrücktheit*) also practically recovered though with some traces of cerebral trouble still remaining. The prognosis of the hallucinatory insanity with pseudo-organic symptoms has been already mentioned. Taken altogether, and excluding the clearly marked cases of organic dementia, the statistics, as Prof. Fürstner remarks, do not favor the opinion sometimes expressed, that prognosis of insanity occurring at an advanced age is especially unfavorable; functional psychosis in the aged appears to be susceptible, at least, of cure. H. M. B.

Hyoscin.—Dr. Otto Dombluth, *Berliner Klin. Wochenschr*, No. 49, Dec. 3, 1888, reports the results of the use of hyoscin in the treatment of the insane in the asylum at Brieg, in the district of Breslau. He employed usually, and exclusively in his later practice, the hydrochlorate, giving it by subcutaneous injection in doses ranging from 0.2 to 1.5 mgs. (or from about $\frac{1}{300}$ grain to $\frac{1}{60}$ grs.) and administered by the mouth in doses of half a milligram to two milligrams. He found the former method in every way the most effective, and he gives a table showing the comparative effects of different doses administered in both ways, in various forms of insanity. For example, in sixteen cases of epileptic insanity, out of fifty-nine injections of hyoscin in quantities varying from 0.2 to 0.9 mgs., only four were ineffective, and in fifty-one complete quieting of the patient for twelve hours or more was obtained, while with doses of from one to two milligrams given by the mouth over twenty-five per cent were failures. The inconvenient symptoms of temporary paralysis,

disturbance of accommodation, &c., were also more pronounced after hypodermatic doses, but in no case were sequelæ observed that called for special caution in any one direction. The appetite was never disordered, and he did not find any increased tolerance of the drug requiring increasing doses, even after it had been used a hundred times or more. Contrary to the experience of Kuhlwetter (*Irrenfreund*, 1887, No. 7,) the author found in his cases the injections were not especially painful.

Dr. Dombluth found that distinctive tendencies were only diminished by the drug in the acutely agitated patients, but that untidy habits were usually benefited by it. In closing his paper he shows that, owing to the smallness of the dose required, its employment is not at all counterindicated by its high price. H. M. B.

The Brain and Moral Culture.—Under the title of "Gehirn und Gesittung," Prof. Meynert, of Vienna, read a paper before the last meeting of the German Association of Naturalists and Physicians (reported in *Berliner Klin. Wochenschr*, N. 41,) in which he considered the brain as an inhibitory apparatus against the lower and more instinctive natural impulses. The higher its development, the greater is the tendency to subordinate the particular to the general, and even in the lower animals we see a high state of social growth, as in the communities of bees and ants. In the development of the human individual, we see in the infant, a being entirely wrapped in its instincts of self-preservation, the "primary ego" is predominant and the child is an egoistic parasite. As development goes on this standpoint is passed, conscience assumes its priority, the brain acts as a check on the purely vegetative functions, and the "secondary ego" takes precedence over the primary one; and this is the general order of society we designate as civilization or social order (Gesittung). If this inhibition becomes weakened, as in progressive paralysis, then we see the disordered predominance of the natural instincts or impulses, and when it is totally lost the individual is in the position of a criminal, who opposes the ethical order of society; a parasite, and one of the worst kind, one who not only lives upon his host, but destroys him in so doing. H. M. B.

The Time of Occurrence of Epileptic Attacks.—M. Ch. Féré has noted the frequency of epileptic fits during a given period of his service at the Bicêtre Hospital in Paris, and found that the hours of greatest frequency of their occurrence were after nine in the evening and between three and five in the morning. That is, the fits were more frequent shortly after going to sleep and shortly before waking. He suggests that, as these hours of greatest frequency are the hours when dreams predominate, there may possibly be some connection between the two. H. M. B.

Low Temperature in the Insane.—Dr. M. Schonfeldt, *St. Petersb. Med. Wochenschr*, (Abstr. in *Kowalewsky's Archiv.* XIII, 1, 1889,) reports two cases of notably sub-normal temperature in the insane. Both patients were general paralytics with a history of intemperance, and exceedingly disorderly and

destructive, so that it was hard to keep them in proper condition and properly clothed. In both cases death occurred due to pneumonia. In the first case the temperature three days before death had fallen to 32.9° Centigrade (=91.22 Fahr.) and on the day of death itself it fell *ante mortem* to 32.4° C. (=89.9 F.) In the second case the temperature five days before death dropped to 87.62° F., and at the moment of death had fallen to 85.10° F.

Dr. Schonfeldt discusses the etiology of this abnormally low temperature, which is obscure, and notices the different views that have been held as to its cause, without, however, as far as we can judge from the abstract of his paper, expressing any conclusions himself.

The figures given above, extreme as they appear, are not as low as those recorded by other observers, such as Lowenhardt and others, in similar cases, but they are noteworthy enough to deserve a record. H. M. B.

KATATONIA.—MM. Seglas and Chaslin in a critical article (*Arch. de Neurologie*, 1888, Nos. 44, 45 and 46,) reviewing the literature of katatonia, the memoirs of Kahlbaum, Kiernan and others, come to the conclusion that this species ought not to be recognized as such, that the characters given it by Kahlbaum, the stupor and the motor symptoms are by no means commonly associated, and that by themselves they may be met with in nearly all forms of mental disorder in some portions of their course. They say, "We may repeat substantially in regard to katatonia what has been already said by J. Falret apropos to catalepsy, that in the description of this affection there have been grouped together a series of facts more or less dissimilar in many points of view, and there has been described a symptom, or more properly a syndrome, rather than a veritable species of disease. Considering moreover, that in a somatic point of view the predominant phenomenon is the presence of disorders of the motor nervous system, and in a psychic point of view, a condition of melancholy, more or less profound, the remainder (symptoms and course) presenting nothing special, we think that for the present katatonia should be relegated to the general head of stupor, simple or symptomatic, of which it is only a variety, in more or less direct relations with a degenerative and especially a hysterical condition. We would add, moreover, that this conclusion is not an explanation, but it is the only opinion that it seems to us can be formulated in the present state of our knowledge. We will leave to others, more competent and more adventurous, the task of following up the track, still but little known, of the hysterical psychoses, and of settling the limits, if possible, of such vague and extensive conditions of mental degeneration." H. M. B.

PUERPERAL INSANITY.—Dr. Th. B. Hausen, *Zeitschr. f. Gebnitsh. u Gynaekol*, XV. 1, 1888, (Abstr. by Mobius in *Schmidt's Jahrb.*,) gives the results of the study of a large number of cases of puerperal insanity carefully observed in hospitals or lying-in asylums, and in large part thoroughly investigated by himself. In this way it is evident that more accurate conclusions are afforded as to the etiology of the disorder than from the records of the insane asylums, which must necessarily receive the patients at a later period after the outbreak of the mental disorder.

He concludes that puerperal insanity is the result of septic puerperal infection. He bases this conclusion on the ground that on the one hand the subjects of the disorder show generally the other symptoms of infection, and on the other hand that the form in which the mental disorder usually appears, that of hallucinatory confusional delirium, (*Verrücktheit*) is such as to indicate an infectious or toxic origin. This delirium usually makes its appearance at the height of the disorder, and seldom during the incubative period or after the fever. In some cases it is recognized only as a fever delirium, but there is no marked distinction between this so-called fever delirium and the psychoses of infectious diseases. The action of the poison on the brain is in all cases the cause of the symptom. If the mental symptom appear before the signs of puerperal infection the case is usually a severe one. In the great majority of cases the form of disorder continues as hallucinatory delirium, and only in a minority does it pass into other phases, such as stupor or acute dementia.

Out of forty-nine cases in which the insanity appeared within one week after confinement, the physical symptoms of puerperal infection were obvious in forty-two. In forty of these the mental disorder took the usual form of acute hallucinatory confusional delirium, (Verrücktheit), or began as such, and in the other two cases the existence of so brief an attack of "mania" could only be explained by the assumption that we had to do with cases of hallucinatory delirium.

Of the seven cases which lacked the physical symptoms of puerperal infection, five also assumed the usual type of mental symptoms Three of these patients had eclampsia, two had been previously insane, one was also an epileptic, and one who was taken on the third day and succumbed in *delirium acutum*, had possibly septicæmic infection from existing tuberculosis.

In two cases where there were no signs of infection, the mental symptoms varied from the usual type. One of these was a hysterical patient who became an actual maniac, and the other, having been previously melancholic, developed a melancholia without hallucinations. H. M. B.

Syphilis, Tabes and General Paresis.—Minor (*Westnick Psychiatrie*, VI, I,) discusses the etiological relationship of syphilis to tabes, dorsalis and general paresis, in the light of statistics from his own clinic and those of Professors Koschewnikow and Korssàkow. In 134 cases of tabes conclusive evidence of syphilis was found eighty times; in one hundred and two cases of general paresis, fifty-four times. In both diseases there were many other cases in which syphilitic infection seemed probable. He also found that syphilis was about five times as prevalent among Russians as Jews, in proportion to the numbers treated, and that tabes and general paresis preserved about the same proportion—five to one—in the two races. Of those suffering from these diseases, a larger proportion of Jews than of Russians had been subjects of syphilis. In view of the fact that hysteria, neurasthenia and some of the psychoses are more prevalent among Jews than Russians he considers the greater prevalence of the diseases in question among the latter as additional proof that syphilis is the most frequent cause.—*Centralblatt für Nervenheilkunde*, Dec. 1, 1888. W. L. W.

THE TEMPERATURE IN GENERAL PARESIS.—Rottenbiller (*Centralblatt für Nervenheilkunde*, Jan. 1, 1889,) gives the results of 4,724 measurements of temperature in thirty-three cases of general paresis. He comes to the conclusion that the prevailing temperature is sub-normal, and that extraordinary daily variations without apparent cause are frequent (in one case the temperature rose from 36.1° C. (97° F.) in the morning to 40.4° C. (102.6° F.) in the evening, and fell again to 36.5° C. the next morning;) and that these characteristics are present in the early stages of the disease and in remissions, and are consequently of diagnostic value. W. L. W.

INFLUENCE OF ERYSIPELAS UPON MELANCHOLIA.—Dinter (*Centralblatt für Nervenheilkunde*, Feb. 15, 1889,) relates two cases in which an attack of erysipelas exercised a favorable influence on patients suffering from melancholia. In the first case, although a partial relapse followed the cessation of the erysipelas, convalescence seemed to date from the illness. In the other case the improvement, though striking, was transient, lasting less than a day. W. L. W.

DISTURBANCES AFTER RAILROAD ACCIDENTS.—Stepp (*Deutsch. Med. Wochenschr, 1889, No. 4*, reports three cases. In the first the patient, a man forty-six years old, a year after a concussion from an accident, in which the train was thrown from the track, gradually lost the whole of his beard and part of the hair of the scalp; the remainder became gray. The hair subsequently grew again, but was fine and downy. At the same time the face became thin and wrinkled. The nutrition was but slightly affected otherwise. In the second case the patient, an engineer, thirty-eight years old, suffered from similar symptoms, but more severe, seven or eight months after a collision, losing all the hair from the head and face within a short time. The features became flaccid and wrinkled, so that he presented the appearance of senility. He died in three and a half years of general tuberculosis. Erlenmeyer suggests the possibility of diabetes in these cases.

In the third case a conductor who was thrown violently about in a collision, developed painful swellings, believed to be neuromata, on the buttocks, thighs and upper extremities, six or seven months after the accident.

The writer, although a railway surgeon, believes that there are invariably organic lesions in cases of nervous disease following concussion.—*Centralblatt f. Nervenheilkunde*, Feb. 15, 1889. W. L. W.

CHRONIC BRIGHT'S DISEASE (ARTERIO-CAPILLARY FIBROSIS) IN ITS RELATION TO INSANITY.—The *Journal of the American Medical Association* for March 23, 1889, publishes an exhaustive paper upon this subject by Dr. E. A. Christian, of the Eastern Michigan Asylum. The conclusions reached by the author are as follows:

1. The frequency with which evidences of chronic Bright's disease are found associated with mental derangement leads to the belief that the latter condition is often dependent upon the former as its cause.

2. This belief finds support and explanation in the present accepted ideas of the pathology of chronic Bright's disease, according to which the disease is no longer regarded as confined to the kidneys, but as possessing features which make it essentially vascular. These consist in structural alterations in the blood vessels of the brain and spinal cord, as well as in the vessels of other organs of the body.

3. There are cases of insanity with chronic Bright's disease, which are of uro-toxic origin, but in the majority of cases the mental manifestations must be regarded either as an expression of lowered nutrition or, as is more frequently the case, due to vascular changes in the brain, attended often by convulsions of other than uræmic origin; disturbances of speech and of locomotion.

4. Finally, in many cases of dementia with paralysis it will be found that the destructive brain lesion, with subsequent decay of the mental faculties, is the result of an alteration in the vascular coats of the brain, coexistent with an hypertrophied heart, and with structural changes in the kidneys.

C. W. P.

Is General Paralysis of the Insane Necessarily an Anomalous and Hopeless Disease?—Dr. I. D. Mortimer, late assistant medical officer to the Portsmouth Borough Asylum, asks this question. (*Lancet*, March 16, 1889), and after giving the histories of four cases in which recovery apparently occurred after the paretic symptoms had become well-marked, says that from a study of the literature of the subject and from personal observation, he is unable to agree with the generally accepted belief that general paralysis is an anomalous and inevitably fatal disease. He says that acute disorders of the central nervous system, not essentially different from one another, may be induced by a variety of causes, toxic and otherwise, acting singly or in combination, and in subjects so predisposed by age, sex, general constitution, &c., these are apt to be associated with progressive and general degeneration. The latter may also occur as a primary change. The term "general paralysis" may be conveniently used to denote the condition it literally signifies, but not to imply that there is an isolated and specific disease so named. Recovery or indefinitely prolonged arrest in general paralysis, he admits, is unlikly to occur, but he claims that there is no reason for an arbitrary denial of its possibility.

C. W. P.

Aphasia and Apraxia.—In an extremely interesting paper read before the New York Academy of Medicine, Dr. M. Allen Starr enters fully into the varieties of aphasia and apraxia, and gives valuable practical directions for the examination of persons presenting these symptoms.

To examine an aphasic thoroughly it is necessary to test:

1st. The power to recall the spoken or written name of objects seen, heard, handled, tasted or smelt.

2d. The power to understand speech, and musical tunes.

3d. The power to understand printed or written words.

4th. The power to speak voluntarily. Does he talk clearly? Does he mispronounce words? Does he misplace words? Does he talk jargon?

5th. The power to repeat a word after another.

6th. The power to read aloud. Does he understand what he reads?

7th. The power to write voluntarily. Can he read what he has written?

8th. The power to write at dictation.

9th. The power to copy.

10th. The power to recognize the use of objects seen, heard, felt, tasted or smelt.

By apraxia is meant the inability to recognize the use or import of an object and it includes the conditions first described as blindness of mind and deafness of mind. The variety known as blindness of mind is that most commonly found. The first example of its successful treatment by operation is recorded by MacEwen, of Glasgow, in the *British Medical Journal* for August 11, 1888. A man who had received an injury a year previously to his applying for treatment suffered from deep melancholy and strong homicidal tendencies which were relieved by paroxysms of pain in the head. There were no motor phenomena, but it was discovered that immediately after the accident, and for two weeks subsequently, he had suffered from psychical blindness. Physically he could see, but what he saw conveyed no impression to his mind. An object presented itself before him, which he could not make out; but when this object emitted sounds of the human voice he at once recognized it to be a man. In attempting to read he saw what he considered must be letters and words, but they were unknown symbols to him; they conveyed no impression of their meaning; the memory of their signs was gone; it was a sealed book to him. These phenomena gave the key to the hidden lesion in the brain. On operation the angular gyrus was exposed and it was found that a portion of the internal table of the skull had been detached from the outer and had exercised pressure on the posterior portion of the supramarginal convolutions, while a corner of it had penetrated and lay embedded in the anterior portion of the angular gyrus. Removal of the bone resulted in complete recovery from the pain and mental symptoms.

The variety of apraxia known as deafness of mind has recently been studied by Oppenheim, (Charité Annalen, XIII, 1888) of Berlin, who noticed that while some aphasics retain their musical faculties, others may lose the power to follow melodies, to appreciate music, or to hear or sing the tunes which they formerly knew.

To test for apraxia it is only necessary to present various objects to a person in various ways and notice whether he gives evidence of recognition. Aphasia occurs without apraxia but apraxia cannot occur except in connection with some form of aphasia.—*Medical Record*, October, 1888. C. W. P.

The Musical Sense in Idiots.—Wildermuth (*Allgem. Zeitschr. f. Psych.*, 1889,) tested 180 feeble-minded and idiotic children with reference to their musical susceptibility and capacity. Of these, 150 were cases of imbecility (idiotischer Schwachsiun), and thirty of complete idiocy (idiotischer Blödsinn.) The imbeciles were divided into three grades, slight, moderate and severe, in respect to the degree of mental enfeeblement; and into four classes according to their musical capacity, the highest comprising those possessing correctness of ear, good sense of harmony and memory of melody; the lowest

who were entirely destitute of musical capacity. For purposes of comparison he examined 82 children, from seven to thirteen years of age, in the public school of Stetton, where they had received systematic instruction in singing. Of the school children he found 60 per cent came in his first class, 27 per cent in the second, 11 per cent in the third, and 2 per cent in the fourth. Of the imbeciles he found 27 per cent of the first class of musical capability, 36 per cent of the second, 26 per cent of the third, and 11 per cent of the fourth. In his third grade—cases of severe imbecility, whom he compares in respect to mental capacity, to children from two to four years old—the respective percentages were 16, 29, 36 and 19. Although the normal children had the advantage in the comparison, he considers that the musical capacity of the imbeciles is relatively far in advance of their general intellectual development.

Of the thirty idiots, most of whom were aphasic, only five appeared indifferent to music, although the great majority of them paid no attention to noises that were disagreeable to healthy persons, and some manifested a very high degree of pleasurable emotion by their movements and expression. Five were able to hum tunes correctly. Cases of acquired motor aphasia showed the least sensibility to music.

He concludes that the musical sense in idiots is more developed than their mental powers in other respects, and that the fact should be utilized in their training. W. L. W.

Sudden Death in the Insane.—Bril, (*Allgem. Zeitschr. f. Psych.*, 1889,) after referring to other similar cases, reports four instances of sudden death among patients in the Bonn Asylum for Insane, who had shown no symptoms pointing to any serious disease. In all the cases degeneration of the muscular substance of the heart—twice fatty and twice myocarditic—was the only lesion which accounted for death, and a physical diagnosis of the condition had not been practicable during life in any of them. He considers latent disease of the heart-muscle very common among the insane, and raises the question of a connection between the psychosis and the faulty nutrition of the heart. W. L. W.

Epileptic Asthma.—Paulet, (*Journal de Médec. de Paris, No. 8,*) reports a series of cases of asthma, the attacks of which were characterized by great regularity of occurrence, and ushered in by headache and vomiting, in which, after the ordinary remedies against asthma had proved unavailing, relief was afforded by the use of the bromides with arsenic. From the resemblance of the headache to that which often precedes epileptic attacks and the effect of remedies, he comes to the conclusion that these were cases of epilepsy in which an asthmatic paroxysm took the place of the usual convulsion. He considers it due to an "epileptic" neurosis of the gastric and bronchial branches of the pneumogastric nerve.—(*Allgem. Zeitschr. f. Psych.*, 1888.)

W. L. W.

5th. The power to repeat a word after another.
6th. The power to read aloud. Does he understand what he reads?
7th. The power to write voluntarily. Can he read what he has written?
8th. The power to write at dictation.
9th. The power to copy.
10th. The power to recognize the use of objects seen, heard, felt, tasted or smelt.

By apraxia is meant the inability to recognize the use or import of an object and it includes the conditions first described as blindness of mind and deafness of mind. The variety known as blindness of mind is that most commonly found. The first example of its successful treatment by operation is recorded by MacEwen, of Glasgow, in the *British Medical Journal* for August 11, 1888. A man who had received an injury a year previously to his applying for treatment suffered from deep melancholy and strong homicidal tendencies which were relieved by paroxysms of pain in the head. There were no motor phenomena, but it was discovered that immediately after the accident, and for two weeks subsequently, he had suffered from psychical blindness. Physically he could see, but what he saw conveyed no impression to his mind. An object presented itself before him, which he could not make out; but when this object emitted sounds of the human voice he at once recognized it to be a man. In attempting to read he saw what he considered must be letters and words, but they were unknown symbols to him; they conveyed no impression of their meaning; the memory of their signs was gone; it was a sealed book to him. These phenomena gave the key to the hidden lesion in the brain. On operation the angular gyrus was exposed and it was found that a portion of the internal table of the skull had been detached from the outer and had exercised pressure on the posterior portion of the supramarginal convolutions, while a corner of it had penetrated and lay embedded in the anterior portion of the angular gyrus. Removal of the bone resulted in complete recovery from the pain and mental symptoms.

The variety of apraxia known as deafness of mind has recently been studied by Oppenheim, (Charité Annalen, XIII, 1888) of Berlin, who noticed that while some aphasics retain their musical faculties, others may lose the power to follow melodies, to appreciate music, or to hear or sing the tunes which they formerly knew.

To test for apraxia it is only necessary to present various objects to a person in various ways and notice whether he gives evidence of recognition. Aphasia occurs without apraxia but apraxia cannot occur except in connection with some form of aphasia.—*Medical Record*, October, 1888. C. W. P.

The Musical Sense in Idiots.—Wildermuth (*Allgem. Zeitschr. f. Psych.*, 1889,) tested 180 feeble-minded and idiotic children with reference to their musical susceptibility and capacity. Of these, 150 were cases of imbecility (idiotischer Schwachsiun), and thirty of complete idiocy (idiotischer Blödsinn.) The imbeciles were divided into three grades, slight, moderate and severe, in respect to the degree of mental enfeeblement; and into four classes according to their musical capacity, the highest comprising those possessing correctness of ear, good sense of harmony and memory of melody; the lowest

who were entirely destitute of musical capacity. For purposes of comparison he examined 82 children, from seven to thirteen years of age, in the public school of Stetton, where they had received systematic instruction in singing. Of the school children he found 60 per cent came in his first class, 27 per cent in the second, 11 per cent in the third, and 2 per cent in the fourth. Of the imbeciles he found 27 per cent of the first class of musical capability, 36 per cent of the second, 26 per cent of the third, and 11 per cent of the fourth. In his third grade—cases of severe imbecility, whom he compares in respect to mental capacity, to children from two to four years old—the respective percentages were 16, 29, 36 and 19. Although the normal children had the advantage in the comparison, he considers that the musical capacity of the imbeciles is relatively far in advance of their general intellectual development.

Of the thirty idiots, most of whom were aphasic, only five appeared indifferent to music, although the great majority of them paid no attention to noises that were disagreeable to healthy persons, and some manifested a very high degree of pleasurable emotion by their movements and expression. Five were able to hum tunes correctly. Cases of acquired motor aphasia showed the least sensibility to music.

He concludes that the musical sense in idiots is more developed than their mental powers in other respects, and that the fact should be utilized in their training. W. L. W.

Sudden Death in the Insane.—Bril, (*Allgem. Zeitschr. f. Psych.*, 1889,) after referring to other similar cases, reports four instances of sudden death among patients in the Bonn Asylum for Insane, who had shown no symptoms pointing to any serious disease. In all the cases degeneration of the muscular substance of the heart—twice fatty and twice myocarditic—was the only lesion which accounted for death, and a physical diagnosis of the condition had not been practicable during life in any of them. He considers latent disease of the heart-muscle very common among the insane, and raises the question of a connection between the psychosis and the faulty nutrition of the heart. W. L. W.

Epileptic Asthma.—Paulet, (*Journal de Médec. de Paris, No. 8,*) reports a series of cases of asthma, the attacks of which were characterized by great regularity of occurrence, and ushered in by headache and vomiting, in which, after the ordinary remedies against asthma had proved unavailing, relief was afforded by the use of the bromides with arsenic. From the resemblance of the headache to that which often precedes epileptic attacks and the effect of remedies, he comes to the conclusion that these were cases of epilepsy in which an asthmatic paroxysm took the place of the usual convulsion. He considers it due to an "epileptic" neurosis of the gastric and bronchial branches of the pneumogastric nerve.—(*Allgem. Zeitschr. f. Psych.*, 1888.)

W. L. W.

BOOK REVIEWS.

The Insane in Foreign Countries. By WILLIAM P. LETCHWORTH, President of the New York State Board of Charities. New York and London. G. P. Putnam's Sons, 1889. pp. 372.

The author of this volume has long been known as an active worker in the charities of this State, and as an honored and efficient member of the National Conference of Charities. For two consecutive years he has been the President of the New York State Board of Charities, and has been a member of that body nearly from its organization.

We learn from the preface that this work is the outcome of an investigation of foreign charitable institutions pursued without interruption through seven months, during which special attention was given to the various kinds of provision made for the insane poor. Though the visitation was made a few years since, a correspondence has been maintained with superintendents, and other official sources, and the latest information has been embodied in the work.

The first chapter is introductory and retrospective and illustrates the methods of treating the insane in earlier periods, and especially during the sixteenth, seventeenth, eighteenth, to the middle of the nineteenth centuries. The second chapter is devoted to a review of lunacy legislation in England, and to a description of certain institutions for the insane of that country designed for the pauper and indigent class. The sketch of legislation shows the steady growth of public opinion in the direction of the better care of the insane, until it culminated in a well organized system, having as its central force the Lunacy Commission. The organization and practical operations of this body are very instructively given, and enforces the lesson which we ought to learn, viz., that no State can organize and maintain a proper system of lunacy administration except through the medium of an intelligent and responsible supervising agency.

The asylums described are, Colney Hatch, Hanwell, Banstead, Leavesden, Caterham, Haywards Heath, Brookwood, Wakefield, Wadsley, Prestwich, Whittingham and Birmingham Borough Asylums, and York. Each asylum is described with considerable detail, and the special features are given in such manner as to enable the reader to form a very correct judgment of its condition and management. The feature of all of the institutions for the chronic insane which most unfavorably impressed the author was the aggregation of great numbers of patients under one management. Of these asylums Prestwich seems to have impressed the writer most favorably. It is one of the four pauper asylums of Lancashire. He remarks: "In an inspection of the interior of this institution one is gratified from the outset." It is, however, one of the largest asylums visited, containing 2,159 inmates, which would seem to prove that a large number of insane under one management is not incompatible with the highest grade of care. Several illustrations of Prestwich accompany the text, showing wards and dining hall. The old Friends asylum at York, was also visited, and the writer states that his inspection sufficed to convince him that the institution retains to this day much of the

progressive spirit and humanity of purpose upon which its world-wide reputation rests.

The third chapter is devoted to Scotland. After giving a brief history of legislation, the author introduces the boarding-out system in Scotland, which he illustrates at length. He approves the system, and believes it is satisfactorily successful. Though he visited a number of asylums he describes but three, viz., Woodilee, Mid-Lothian and Peebles and Morningside. These institutions are described at length, and the author found little to condemn and much to praise in each.

Ireland is the subject of the fourth chapter. The lunacy system is historically sketched, and the Cork, Belfast, Letterkenny and Richmond asylums are described. The author states that it must be conceded that the administration of the affairs of the existing institutions are generally deserving of commendation. Richmond asylum he ranks among the first in Great Britain.

Chapter fifth is devoted to a general survey of the progress and present state of lunacy administration in continental countries. The author gives an interesting sketch of his visits to the principal asylums of the continent; his critical observations on each affording the reader a very correct view of the present state of public opinion, as to the care of the insane, in each country. No one can read these detailed notes of inspection without being greatly instructed and profited. We can only notice the visits to some of the more noted institutions. We select those which represent departures from old and long established methods. Of the asylum of Alt-Scherbitz, Saxony, a modern institution for the acute and chronic insane, the author remarks: "Here has been brought out a system in which are incorporated some of the best and most modern methods of caring for the insane in England, Scotland, France, and other countries." In effecting such results there is a complete abandonment of the congregate system of constructing the buildings, and the adoption of separate cottages, especially arranged on the principle of large classification. The aggregation of cottages is such as to conceal from the casual visitor to the grounds, the character of the institution, and even on entering many of the buildings their special purpose is not apparent from anything that is seen or heard. The cottages for the acute and chronic insane are separated by a public road. The buildings for the latter class are distributed over the farm, being grouped with reference to the employment of patients.

In the department for the acute insane all possible means are employed to restore patients. The writer says: "The medical department appeared to be thoroughly systematized. Every patient on arrival at the institution must remain in bed on the morning after reception to wait a mental and bodily inspection by the whole of the medical staff. Each physician is required to write out separately his diagnosis of the case, giving his views of the neccessary treatment. These become matters of record." When a case is decided to have become chronic the patient is transferred to the colony on the farm, and is assigned to the group to which his habits or trade adapt him. Besides the ordinary work of the farm a great variety of trades are carried on. There are brick making, masons, joiners, wagon-makers, blacksmiths, carpenters, smiths, shoemakers, tailors, saddlers, book-binders, stone masons, painters, basket-makers, &c., &c. In a word the colony is a little village in which every

variety of business is carried on that would be required in an ordinary hamlet or town.

The buildings are all simple, but tasteful in architecture, each being adapted in its arrangement for its special purposes. Economy and efficiency go hand in hand, both in building and in management. Several illustrations accompany the text, showing the groups of buildings and the plans of many cottages. The asylum contains about 600 patients, and was opened in 1876.

The next asylum which we select for notice is devoted to the chronic insane, viz., Clermont, France. Here we have the colonizing system in successful operation. There are almost 1,580 patients under one management, distributed into three departments, viz., Clermont, Fitz-James and Villers. These colonies are separated, one being a mile distant from Clermont, where is located the administration buildings. The central colony at Clermont, has 1,000 patients of the more disturbed class, that at Fitz-James 440, that at Villers 140. The principle governing this colony is the development of diversified employments on the large farms at the latter places. Every inducement, including rewards in money, are offered to those able to work to impel them to engage in some pursuit. The author concludes his account by stating that, "the free and natural conditions of life existing at Fitz-James and Villers are marked characteristics of these colonies, nor can one forbear to note the admirable judgment and delicate tact displayed in adjusting the employments to the experience, physical capacity and mental condition of the patient." The central colony did not appear to the writer to the same advantage as the other colonies, and he is disposed to attribute the difference to the large numbers brought under one management, an evil on which he is disposed to lay great stress.

The colony of Gheel illustrates the system of removing the chronic insane from asylums and boarding them in private families. The author's account of this colony is very complete and instructive. He made a thorough examination of the system and his conclusions are important. We can only add that he was very unfavorably impressed with Gheel. "Looking" he says in conclusion, "at the commune in its moral aspect, one cannot help thinking that the shockingly, immodest exhibitions which here and there meet the eye must have a baneful influence on the large number of children of both sexes growing up in their midst." He adds: "After a careful examination of the colony, the writer is forced to the conclusion that the Gheel system is of little practical value to America, except as demonstrating that a great amount of freedom is possible in the care of certain classes of the insane."

The concluding chapter of the work, occupying seventy pages, contains a resumé of the results of the author's observations on foreign institutions. This chapter will repay a careful perusal by every one interested in the care of the insane, as many of the questions discussed are vital to our present stage of progress in solving the problem of correct lunacy administration. We have space to notice but two or three subjects of special interest.

The author emphasizes his objections to large mixed asylums on the ground that the superintendent cannot be familiar with all of his cases. He seems to overlook the fact that a large mixed asylum, properly organized like Alt-Scherbitz, may have its curative department so separated, and so organized that the highest degree of individualism of patients may be secured. We

regard the personal care of patients in an asylum rather a question of organization than of numbers. Remuneration of the insane for labor has been found a therapeutic agency of value in France. At Fitz-James and Gheel it was regarded as a powerful stimulus to labor. At Broadmoor, England, remuneration for labor among insane criminals began in 1877, and has proved beneficial to the patients and advantageous to the asylum. The sum paid amounts to about $1,500 yearly.

In regard to poor-house care of the insane the author speaks from large experience. He says: "If, from the examinations made, one conviction forced itself upon my mind more strongly than another, it was that poor-house, work-house or alms-house care, whether in common with sane paupers or in separate departments, but under the same control and management, is not humane, and is in many ways unsatisfactory. In keeping two classes under the same management the constant tendency is to the adoption of a uniform standard of care. Provision that would be adequate to the needs of the average poor-house inmate is quite inadequate to the necessities of the insane. No statute can justly place common paupers and the insane on the same planes." These views are thoroughly sound, and derive peculiar weight from the high position of the author among practical workers in the field of State charities.

Mr. Letchworth holds advanced opinions, also, in regard to the obligations of the State to the insane. He would have the State furnish free hospital treatment for those coming under the general term of the acute insane among the dependent class. He holds that if State care were free to such cases, prompt transfer to hospitals would be encouraged, and the great advantages resulting from early treatment would be more generally secured. He also speaks approvingly of State aid to counties and municipalities which elect to care for their own insane, in the same way that Parliament grants four shillings a week per capita to local authorities who maintain a proper standard of care in their own institutions. While that system of State aid may serve a good purpose in Great Britain where the asylums all belong to local authorities, it is questionable whether it would secure the grade of care of State asylums in the counties in this country.

State supervision of the insane concludes the author's resumé. He would have the Supervisory State Board non-partisan, and include members of the medical and legal professions, and persons of well known business qualifications. He would accurately define their duties by statute, but give them very limited powers.

In concluding this brief notice we would say that we have read the work of Mr. Letchworth with great pleasure and profit. It abounds in useful information in regard to the policy of foreign countries in the care of the insane, and of the institutions which they maintain. The suggestions and reflections of the author are always interesting and valuable. The text of the book is attractive by its ease and directness, while the make-up of the volume is in the best style of its popular publisher. A large number of illustrations add great value to the text, especially those relating to the construction of asylum grounds and buildings. The work is dedicated to "His Excellency David B. Hill, Governor of the State of New York, and to my associate Commissioners of the New York State Board of Charities."

S. S.

La Raison dans la Folie. Étude pratique et médico-légale sur la persistance partielle de la Raison chez les Aliénés et sur leurs Actes raisonnables. Par le Dr. VICTOR PARANT, Toulouse. Edouard Privat, 1888. pp. 423.

In his preface the distinguished author modestly disclaims the intention to offer to alienists anything absolutely new. He will be satisfied, he says, if his work proves at all useful to them, by presenting in compact form, the results of experience, and furnishing conclusive arguments against widely accredited errors. It goes without saying that the work has been thoroughly done, and its object amply fulfilled. It occupies a field hitherto neglected. Modern systematic treatises upon the subjects it embraces are wanting and the author is deserving of thanks for the able manner in which he has sifted out from the writings of the one hundred and thirty-three authorities quoted testimony establishing and confirming the sound conclusions reached from his own extensive and varied experience. Many popular misconceptions will receive a rude shock from these vigorous pages. Current treatises on insanity are in a measure responsible, in the author's opinion, for the erroneous idea that the existence of insanity necessarily implies an absence or abolition of the capability of reasoning and judging accurately. In speaking of the decay of mental faculties in insanity, authors are apt to lay too little stress upon the fact that this degeneration is progressive, not sudden, and that complete obliteration of the higher faculties of mind occurs only after the lapse of time. He remarks facetiously that authors seem to be more occupied with the mental death of the insane person than with that which remains to him of intellectual life. The arrangement of subjects is painstaking and clear. Chapter one treats of "Knowledge or Intelligence among the Insane," and under different heads discusses the persistence of memory, the manifestation of intelligence in occupation, in conversation, in physiognomy, etc.; also normal intellectual activity and hyperactivity. "Judgment and Discernment among the Insane," is the topic of the second chapter, in the third article of which is considered that ever-present ever-exasperating question the "right and wrong" test of insanity. Only a relatively limited number of the insane, the author maintains, absolutely lack the faculty of appreciating right from wrong: namely those suffering from *delirium grave* intense maniacal excitement or profound dementia, and those whose faculties are wholly absorbed in *délirant* conceptions. Fortunately in France the discussion of this question has practically ceased, experience having pronounced for the acceptance of the view held by alienists as opposed to that of the "moralists" who are prone to confound a knowledge of right and wrong, with the ability to exercise free will. Would that it might be maintained with equal truth that a corresponding advance had been made in America, where that musty relic of antiquity still figures in judicial rulings. (*Vide* Judge's charge in the Barber case reported in the January number of this journal.) The character of the conduct of the insane, the logical sequence of their delusions and acts, and the partial persistence of reason in insanity examined from a medico-legal point of view, are studied in the remaining chapters. The law of France is singularly clear upon the questions of civil capacity and moral responsibility of the insane. If one is in a state of insanity or madness he is at that time, in the eye of the law, incapable and irresponsible—the word *démence* being used synonymously with mental alienation. No degrees of mental capacity or responsibility are recog-

nized and no distinctions made between general and partial insanity. Clearly as it is worded however, and clearly as it is designed to bestow particular solicitude and care upon those incapable of protecting themselves, obstacles are encountered in its practical application. Because of the difficulty experienced by persons unfamiliar with mental disease in distinguishing conditions near the border line between health and disease. Because such persons are inclined to note only those appearances which can be figured, and are apt to be misled. Because it is considered sufficient in order to establish insanity to make comparison between the insane person and one of sound mind (instead of justly comparing the present and past condition in the same individual.) Because it is believed that insanity consists, essentially, in a manifestation of "ideas commonly called delirant" (delusions). Unfortunately in America these errors are not confined to persons "unfamiliar with mental disease." The reviewer is acquainted with a physician of eminence who has announced his unwillingness to certify to the insanity of any person who does not express delusions—a conservative position surely. In view of the proposition of Dr. Stephen Smith, relative to the admission of voluntary patients to asylums, and the discussion elicited by it, it is of particular interest to note that the French Senate upon a report of a committee has favorably considered this question, and voted that "any person who having consciousness of his mental alienation requests to be placed in an institution for the insane may be admitted upon a simple request signed by himself." The author's conclusions are of much medico-legal interest. The book is an ideal one for a medical examiner in insanity and will be found by alienists extremely valuable for reference. In commending it we would express the hope that it may see an early translation.

C. B. B.

Electricity in Diseases of Women, with Special Reference to the Application of Strong Currents. By G. BETTON MASSEY, M. D. F. A. Davis & Co., Philadelphia and London, 1889.

This appears to be a very excellent work, covering a special field in electrotherapeutics. In looking it over we find very little in it that needs anything like criticism.

It is clearly written and many points, which are in some other works rather unintelligible on account of overloading with scientific descriptions and theories, are here made very clear even to the most uninformed reader. This is especially the case with the description of the electrical apparatuses and their workings. In this department the only point that we notice where we would suggest a change, is in regard to the use of the author's current controller, which is a very neat and ingenious arrangement of itself, but in its description he calls attention to special points and says "in using an incandescent current never bring the metallic part of the cords or electrodes together unless the crank is well over to the right." Inasmuch as this apparatus has a dextral turn according to the engraving this might lead to a misunderstanding. It would have been better, we think, to have said, unless the crank is very near the starting point, or something to that effect.

The latter half of the book is given to the special applications of electrical treatment in the diseases of the female pelvic organs with numerous clinical histories illustrating them. The author appears throughout judicious and

reasonably conservative in his discussions of these cases, and his concluding chapter deals especially with the contraindication and dangers of electrical treatments in certain forms of disease where it has been applied.

The work is well illustrated and the engravings are throughout very intelligible.

We can recommend the work to any one who wishes to make use of these applications as one of the very best guides—in fact, we know of no other of its scope, and were there others at the present time they would hardly be any better. H. M. B.

Progressive Muscular Dystrophies: the Relation of the Primary Forms to one another and to Typical Progressive Muscular Atrophy. By B. SACHS, M. D. Reprinted from the *New York Medical Journal* for December 15, 1888.

In this paper Dr. Sachs presents an admirable critical digest of the accumulation of science and nescience that forms the basis of our knowledge of a very interesting department of neurology. The somewhat unfamiliar term "dystrophies" is defined at the outset, that there may be no possibility of misunderstanding. By progressive muscular dystrophies the author intends to "designate those forms of disease in which a primary progressive wasting of some or all of the muscles of the body is the most characteristic feature, and in which this wasting may or may not be associated with true pseudo-hypertrophy of some muscles." This excludes all muscular atrophies following cerebral, myelitic, or peripheral nerve diseases, but typical progressive muscular atrophy, due to an undoubted spinal affection, is unavoidably drawn into the discussion, being, indeed, utilized as a basis for comparative study. A concise and excellent account of the symptomatology and pathology of this well known form is given. The most interesting observation in connection with this affection is the conclusion that "although progressive muscular atrophy is of spinal origin and is a distinctly clinical entity, it is not necessarily a morbid entity, and in most cases represents an early stage of one of several spinal-cord diseases."

Going on to a discussion of the dystrophies proper, the author first takes up pseudo-hypertrophic paralysis, and a large part of the attention is directed to an analysis of the data as to the implication or not of the spinal cord. The conclusion reached is that the *non*-spinal origin of the this form "is beyond question." It is significantly noted, however, that further autopsies on typical cases are extremely desirable. Now, aside from the fact that the evidence instanced may seem to an unprejudiced observer not quite so unequivocal as altogether to warrant the conclusion here reached, it may not be amiss to note that coincident spinal changes are excluded here quite as much as primary ones; that is, the autopsies revealed no change at all in the cord. But he who looks with the eyes of the morphologist rather than of the clinician or anatomist will be loath to believe that either centre or periphery can be affected altogether independently of the other. Change in function must be accompanied or preceded by change in structure; and it would seem, that, if in no other way, then indirectly through the vaso-motor system, the cord must be affected in the primary dystrophies, sooner or later. That our methods of investigation are yet too inexact to detect these changes is no argument against their existence. True, this is theoretical pathology, and theories have no place in science

when opposed to observed phenomena. But this theory is based on the widest of biological foundations; and the evidence against it is purely negative. That even a considerable number of observers fail to find any lesion in the cords of subjects having pseudo-hypertrophy, is a fact connoting very little more than it plainly states; while the fact that two such observers as Dr. Amidon and Dr. Sachs could disagree as to the presence or absence of pathological change in a specimen from one of these cords, is at least highly suggestive. The case referred to is one in which Dr. Amidon finds conspicuous changes, but Dr. Sachs, observing the specimen, decides "that the case would appear to show that there are no serious cord changes in pseudo-hyperthropic paralysis"—certainly rather a wide induction from a single specimen, especially in consideration of the fact that in the eye of the other observer it afforded data for a diametrically opposite conclusion.

Other dystrophies discussed are Erb's form; the hereditary form the facial type of Landouzy-Déjérine; and the peroneal type. The last named is regarded by the author as deserving a place, but as being rather a spinal than a primary dystrophy. It is suggested that it may be a poliomyelitis anterior chronica lumbalis, and therefore altogether comparable to the ordinary cervical form.

Of the other dystrophies mentioned, Erb's type alone is accorded a place as an isolated affection, and this only provisionally, pending further investigations. The Landouzy-Déjérine type is rejected as being practically identical with Erb's form; and Leyden's hereditary type is thrown out on the ground that all the other dystrophies mentioned are also distinctly hereditary. The argument against distinguishing a particular type as hereditary seems perfectly valid, in view of the demonstrably frequent heredity of all the forms of this as of most other nervous affections. Usually heredity produces a general tendency of the entire nervous system to degeneration or abnormal obliquity; but occasionally specific groups of cells seem to have inherited the molecular instability that almost necessitates their overthrow under the ordinary influences that are brought to bear upon the organism. That such can be the case would seem marvelous beyond all expression were it not a matter of ordinary observation. But then, almost any fact of heredity, considered by itself, is nothing less than miraculous.

Not the least important part of Dr. Sach's paper is the attempted classification of these dystrophies. Recognizing that there are mixed forms, and that the exact rank of these cannot be determined at present, the author believes that, according to their cardinal symptoms, they should all be classed either with the spinal or primary dystrophies, the former implicating and the latter altogether ignoring the spinal cord. This is undoubtedly a broad scientific outline, provided it can be established that such a division corresponds with the phenomena themselves. Conservatism would suggest, however, that we take cognizance of the fact that our data for such a division are rather insufficient and even somewhat contradictory; and hence that, while the classification may stand for what it is worth under this limitation, it should not be regarded as unequivocally ultimate and conclusive. A classificatory suggestion that must meet with general approval is the proposal to relegate to progressive muscular atrophy a generic application; and to give a new specific name to the type

(Aran-Duchenne) which now usually bears that cognomen. The name suggested is "spinal progressive amyotrophy." Introducing this name and synopsizing the conclusion of this paper the author proposes as a complete provisional classification of the progressive muscular atrophies the following:

1. Amyotrophia spinalis progressiva:
   a. Hand type;
   b. Leg type—Peroneal form.
2. Primary progressive dystrophies:
   a. Pseudo-hypertrophy;
   b. Erb's form.

Such a concise classification is a striking argument against that excessive production of types which is a distinct and pernicious tendency of to-day's medical science. Phasias, taxias, prexias, phobias, manias and the like have increased with such proliferous fecundity of late that it is often difficult to determine just what are intended for symptoms and what for diseases; and the "busy practitioner" is in danger, if he pause for a fortnight from his reading, of finding his journal written almost in an unknown tongue. Far be it from us to quarrel with the tendency to scientific differentiation in nomenclature, for this is the sharpest edged weapon of progressive science; but it should not be forgotten that in unskillful hands the sharpest weapon may prove most dangerous to the wielder. A proliferation of names not connoting essential conditions in nature is as pathological a process in the scientific *organon* as the proliferation of organic cells in a tumor; the one process as the other resulting in a growth not merely useless and cumbersome, but positively detrimental.

Another tendency of to-day which this paper recalls is the custom of stigmatizing a form or supposed form of disease with the name of its discoverer or first describer. Here are mentioned the type Aran-Duchenne, Erb's form, the type Landouzy-Déjérine, and Leyden's hereditary type. It is a particular merit of the classification here proposed that it eliminates all of these but one, and that one a provisional and not yet established form. Naming types of disease after men is a delicate compliment to the men themselves, and during the formative period of a type may be a decided convenience to investigators; but it is exceedingly undesirable that any disease should go down to future generations labeled with the name of its discoverer. If need be, let the name of the discoverer follow as in zoölogical nomenclature, but let a distinct appellation, founded upon some more scientific basis, be given the type as soon as it has been proven worthy of an isolated existence. But when one speaks of classification or terminology in medicine, he may well do so with bated breath; and wisdom suggests a hasty retreat from a field of such impenetrable intricacies. The classificatory system of any science is an index to the stage of development of that science. Adjudged by this standard, what shall we say of medicine? But the foundation must precede the superstructure; and medicine is not yet ready for her Cuvier. Each such study as this of Dr. Sach's, however, will do a little toward clearing the ground for the mighty builder who some day, a generation or a century in the future, shall come to erect the edifice of scientific medicine.

H. S. W.

Some Post-Hemiplegic Disturbances of Motion in Children. By PHILIP COOMBS KNAPP, A. M., M. D, Clinical Instructor in Diseases of the Nervous System, Harvard Medical School; Physician to Out-Patients with Diseases of the Nervous System, Boston City Hospital. Reprinted from the *Boston Medical and Surgical Journal* of November 22, 1888. Cupples & Hurd, Boston.

This paper consists chiefly of an analysis of the symptoms presented by three cases observed by the author, in which there was a "cerebral infantile paralysis"—a double hemiplegia in one—presenting a rather definite group of motor disturbances, differing from the ordinary spastic forms.

The "symptom-complex" here presented is that of "tonic spasm, associated movement, and inco-ordination," and the author, while admitting that it is really only a mixed form, yet regards it as representing a fairly distinct type of post-hemiplegic disturbance of motion. Several similar or identical types have been described, we are told, one of them being the "mobile spasm" of Gowers. As regards the pathology of the affection, little seems definitely known. Gowers regards it as due to a meningeal hæmorrhage of congenital origin. Dr. Knapp, on the contrary, is not disposed to regard it as having any localized character, "not even as pointing to a lesion near the thalamus." He thinks "that the most that can be said at present is that this 'mixed form' of toxic spasm, inco-ordination, and associated movement, like most if not all of the other forms of post-hemiplegic disturbances of motion, points simply to a lesion of the pyramidal tract, which either deranges the initiation of movement in the motor centres, or impairs the conduction of the motor impulse in the nerve fibres." H. S. W.

Nervous Affections Following Injury. "Concussion of the Spine," "Railway Spine," and "Railway Brain." By PHILIP COOMBS KNAPP, A. M., M. D. Reprinted from the *Boston Medical and Surgical Journal* of November 1 and 8, 1888. Cupples and Hurd, Boston, 1888.

Dr. Knapp's paper is a contribution to the mooted discussion of "contusion" *versus* "concussion" in brain or cord, more especially in connection with injuries due to railroad accidents. Having briefly epitomized the bibliography of the subject, he presents a synopsis of the symptoms afforded by twelve cases observed by himself; these cases being, he tells us, not selected in support of any particular theory, but as exhibiting different types, and representing as fairly as may be the cases he has seen. The psychical and physical symptoms exhibited are various. Motor disturbances are not uncommon; sensory disturbances rather more rare. Where the latter do occur—manifested, for example, in hemi-anaesthesia—it is argued that the condition is not by any means always an hysterical one, as some authors have seemed to think. In this connection a somewhat elaborate consideration of the ever-recurring topic of hysteria is taken up. The chief conclusion seems to be that in these railway cases there is an organic lesion underlying the symptoms which may at times appear to be merely hysterical. This conclusion directly involves the question of the "structural" nature of hysteria and the implication is that hysteria belongs to the category of functional diseases.

Doubtless this is altogether consistent with the present state of pathological knowledge; but it is always well to bear in mind that the use of the word "functional" in relation to any disease is practically a *petitio principi*. Any disease is merely "functional" whose intimate pathology is still unexplained;

each step in pathological knowledge removes some affections to a realm of structural disease; and an absolutely comprehensive pathological knowledge, (should such ever be attained) would utterly do away with the word "functional" in this connection, and correlate every abnormal condition whatsoever with an anatomical change of tissue molar, molecular, or atomic. In the present state of our knowledge—or lack of knowledge—it is certainly true that the word has a tolerably well-defined utility; but its true implication should never be forgotten, and its exact limitations cannot be too often emphasized and insisted upon. It should be said, however, that Dr. Knapp's paper recognized this distinction throughout, at any rate, as an undercurrent. Indeed, he pretty explicitly states the case at the beginning in his definition of concussion of the spinal cord as an injury where "the cord has sustained no coarse, mechanical lesion, where 'molecular changes in the finer nerve element have occurred giving rise to an immediate and complete functional paralysis,' a condition analogous to the commoner concussion of the brain." The last clause, by the bye, a consideration of which would be altogether inappropriate in the present connection, one might be disposed to call in question.

The not very perspicuous conclusions reached by the author evidence the rather unsatisfactory state of our pathological knowledge of these injuries. The most important conclusion, perhaps, is to the effect that injuries may give rise, without producing gross mechanical lesions, to "typical chronic degenerative processes of insidious onset." This significant observation of itself ought conclusively to appeal to anyone who so little understands the essential nature of physiological processes as to believe in the possibility of a "concussion" altogether apart from any organic change.

H. S. W.

Report of the Standing Committee on the Insane of the State Board of Charities. **Adopted and transmitted to the Legislature of the State of New York with the Twenty-Second Annual Report of the Board, January, 1889.**

The twenty-second annual report of the State Board of Charities, as presented to the Legislature, is a document of sixty pages, with nine appended documents, consisting of the reports of the various standing committees of the Board, the various commissions, and the report of its secretary. Among them is a report of the Standing Committee of the Insane of the Board. This is a document of 250 pages, nearly the whole of which is devoted to the insane in county custody. From this report it appears that the various State asylums do not, as a whole, contain a population very much in excess of their utmost capacity, and that while vacancies exist for the reception of quiet patients, the wards devoted to the care of the violent and filthy classes are crowded. Especially is this true in those asylums devoted to the care of the chronic insane, to which are sent the most violent, troublesome and filthy, and therefore, the most expensive cases of the exempted counties. This injustice to the remaining counties of the State becomes manifest, when it is considered that the vastly increased cost of caring for such cases is borne in part by other counties to whom these patients do not belong. It is also shown that the removal of quiet, industrious patients to exempted counties, where the standard of care and the personal individual attention is lowered,

leads to deterioration of their condition, and that patients considered quiet in State asylums soon lose their orderly, industrious habits and become a source of trouble, and frequently require to be re-transferred to State care. Thus the system works an injustice in the matter of increased cost to unexempted counties and also to the patients themselves. It also changes the character of the State asylums, which were constructed to care for the State chronic insane as a whole. The large expenditures by the State were undertaken with this object in view and room provided to meet the requirements of the ordinary insane population. The extraordinary pressure for the admission of violent, filthy and disturbed patients crowds the departments devoted to them and leaves vacancies in the quieter wards, thus embarrassing the administration and defeating in part the object for which these institutions were designed. If counties are to be exempted, it would seem that they should be required to conform to a standard of care that should enable them to properly care for all their patients and not throw the burden of their worst cases upon other unexempted counties, while they derived the benefit from the quiet and industrious patients.

According to "Exhibit L," the number of counties which are exempted by the State Board from the Willard Asylum Act comprise eighteen, and of this number six only are not restricted as to the number and character of their patients. From these exempted counties 443 are maintained at the asylums for the chronic insane at Willard and Binghamton, embracing fifteen per cent of the population of these two asylums, and constituting their worst element. Notwithstanding this relief to the counties the committee in their report upon county insane find that their regulations are disregarded in a great variety of instances, and in most cases flagrantly. The first rule, requiring medical supervision, is violated by eleven counties; the second rule, requiring the appointment of a certain proportion of attendants, is violated by fourteen counties; the third rule, directing the establishment of certain rules and regulations as to diet, clothing, means of restraint, amusements, occupations, etc., has been violated in whole or in part, by each and every one of the exempted counties. In addition several special conditions relating to several exempted counties have been disregarded and set at naught.

"Ulster county, exempted only eighteen months ago on the express stipulation that no noisy, disturbed or violent cases, and only fifty patients in all, should be retained, violates one and all of them and also breaks other implied conditions, as well as express rules, by neglecting to furnish a sufficient number of attendants or to provide seats for more than one-half the number of patients, and by mixing paupers and patients, to some extent, in the same wards, as well as to the full extent in communicating halls, while making room for the excess of patients by consigning their paupers to a veritable sty, unfit in its present condition for the occupancy of any man or woman, however low in the scale of humanity."

What is more to the point, however, and entirely reprehensible from a humane and charitable point of view, is the fact that "the statutory provisions restricting the county care to the chronic insane have been violated in many of the counties" and "even in the counties where positive evidence does not appear showing violation of the statutes, there is reason to believe that care is not taken to properly distinguish acute from chronic subjects."

Several copies of medical certificates are given in support of this opinion showing that acute cases have been committed to the county asylums where they are subject to only occasional visits of a physician.

In most of the county asylums also there prevails an entire absence of classification and the filthy and the clean, the violent and the quiet are mingled together, poisoning the air of the halls and rendering peace and quiet impossible.

In view of the fact that such open disregard of the regulations of the State Board of Charities exists, it would seem that a complete and thorough revocation of exemption in case of some particular county might act an example and exert a salutary influence in proportion to its severity. Room could be found in the State Asylums for the few cases thus requiring it and the matter forced to an issue, in the trial of which the State Board would have the assistance of the best citizens of the State and the cordial support of public sentiment.

An attempt is made to analyze the cost of county care for the purpose of comparing it with State care, but owing to the absence of data and the association of the poor accounts with those arising from the maintenance of the insane, no comparison can be drawn. The following errors, however, usually found when such comparisons are made are pointed out:

First. The small amount of farm land provided in the counties is inadequate and much less than is necessary to approach the standard of State care.

Second. It is assumed "that an insane asylum is but an extension of county poor-house, without other means of treatment or even of classification."

Third. The insane are not regarded like other sick persons as entitled to our aid and sympathy, but are looked upon as ordinary paupers with only the right to be maintained as cheaply as possible. No proper provision is made therefore for the care of any but the industrious class and the quiet workers, and these are expected not only to care for themselves, but to aid in caring for the paupers. The sick, feeble, filthy, destructive and violent classes are sent to State Asylums, or if they remain in county houses suffer from neglect or abuse. "If a State Asylum could have these workers only it is safe to say, they would be nearly, if not entirely, self-supporting, even on a basis of medical supervision of labor, restricted and regulated for the good of the patients as primary and paramount, and such support as secondary and subordinate."

The conclusions of the Committee are, "That there are thus no adequate legal remedies for the great defects and gross evils in the asylums of the exempted counties. Remedial legislation is therefore demanded."

Whether the State should abandon county care is a matter that the Committee do not decide, but leaves its determination to the discussions of this kind in former reports. They are united, however, on "one of two alternatives, viz., either first, to abolish county care, or second, to restrict and regulate it."

These conclusions are reached after a thorough personal visitation of the various counties of the State and a careful examination into the methods of care adopted by the exempted counties. In view of the fact that the regula-

tions established by the State Board of Charities to enforce a higher standard of county care, are openly disregarded, the county system of caring for its own insane must be considered a failure from any point of view.

In conclusion the committee sum up, as follows, some of the mistakes and misconceptions which arrest legislative reform and obstruct legislation, viz.:

"1. A misapprehension that lunatics and voluntary paupers are generally the products of the same causes operating in similar ways is often expressed, when, in fact, the contrary is the case, as shown by the opinions of alienists as well as by statistics."

"2. A misconception that the right of the county, as a unit in political organization, is to dictate the treatment and care of its indigent insane, is sometimes represented; while on the contrary, lunatics are, as infants are, but as paupers are not, the special wards of the Supreme Court, which has control over their persons and estates in chancery, and by common law as well as by statute, thus exercising a special jurisdiction which is not of the county, but of the entire people of the State."

Following these generalizations of the committee is a detailed account of their visitations to the various asylums of the State and to county institutions, relating in a more minute manner the results of such visitations, together with tabular statements, various exhibits, summaries of asylum reports, together with correspondence on matters relating to the county insane asylums and a copy of some suggestions by the President of the Board with reference to a law relating to the care and custody of the pauper and indigent insane of all the counties of the State, and other matter of a like character.

In contrast to the report of the "Standing Committee on Insane," the report of the State Board of Charities contains no approval of the conclusions of the committee on comments, on the strongly presented statements of facts in their report. Their neutrality and conservatism on a question that is, at the present, exciting a wide-spread discussion, is almost painfully strained. It would lead a critic, unacquainted with the peculiar situation of lunacy affairs in New York State, almost inevitably to the conclusion that the Board did not approve the report of the committee, and he would probably be nearer the truth than the present reviewer, who does not express an opinion.

H. E. A.

Annual of the Universal Medical Sciences. A yearly report of the Progress of the General Medical Sanitary Sciences throughout the world. Edited by CHARLES E. SAJOUS, M. D. Philadelphia and London. F. A. Davis, Philadelphia, Publisher.

Annual of the Universal Medical Sciences is the title of a rather pretentious publication that has appeared in five volumes during the past year. The editor-in-chief is Dr. Charles E. Sajous, of Philadelphia, and with him are associated seventy corresponding editors, collaborators and correspondents. The aim of the work is to "collate the progressive features of medical literature at large, and clinical data from countries in which no literature exists and to present the whole once a year in a continued form, prepared by writers of known ability."

Volume I opens with an exhaustive review of the recent literature on diseases of the brain and spinal cord by Dr. E. C. Seguin, from which it does not appear that any important discovery has been added to our knowledge of these

subjects during the past year, but quite a series of new facts, experimental and autopsical, have been recorded. The results have tended to strengthen the doctrine of cerebral localization in man and to facilitate the more exact application of this doctrine, deductively, to medical diagnosis and surgical treatment. Much confirmatory evidence of the existence of motor centres in the human brain is found in numerous papers, and localization diagnoses are now made with greater and greater positiveness.

Touching the advisability of compressing one or both carotids, or of opening the skull to relieve pressure from cerebral hæmorrhage, Dr. Seguin says: "This rash suggestion is based on a one-sided view of the lesions of cerebral hæmorrhage and on a misplaced confidence in our ability to make a diagnosis of hæmorrhage." "In reality, in most cases the diagnosis between hæmorrhage and thrombosis with consequent softening (and in many cases embolism with consequent softening) is extremely uncertain." "It is the laceration of important gray or white substance which causes the irreparable mischief, and removal of the clot is useless to repair it." "The clot, within certain limits, is, in our opinion, a help to the arrest of hæmorrhage, and it is well known that it is quickly and readily absorbed." "The suggestion to compress the carotid on the side of the injury is also, we believe, dangerous." "The cerebral tissues around the clot, and in many cases, the whole brain, is anæmic immediately after the hæmorrhage, from pressure, and this is certainly a contra-indication to interfering with the arterial supply as it is to copious phlebotomy." Dr. Seguin fears that a craze is threatened in the way of trephining the skull for all sorts of lesions, and desires to do his share in attempting to restrict the application of this most valuable operation to conditions and cases where there is a rational and promising indication for its performance.

An exceedingly interesting note is taken from a paper by Dr. Skeer, of Chicago, on the diagnosis of tubercular meningitis. The symptom is "a small circle which forms in the iris near to and completely surrounding the pupillary margin. At first it is very indistinct and resembles a wreath of white clouds, the edge of which extends at first to the free border of the iris. In from twelve to thirty-six hours the whole margin of the iris will be involved, having become of a yellowish or whitish brown color and appearing irregular, thickened and somewhat granulated." Dr. Skeer considers that when in a case of cerebral meningitis the wreaths of white clouds appear in the iris the question of diagnosis is settled beyond a doubt.

Dr. Spitzka comments briefly on the progress recorded in the domain of psychological medicine. The most interesting developments of the year relate to the phenomena of functionally perverted mental life observed in connection with hysteria, mental suggestion and hypnotism. It is claimed that hemi-anæsthesia, paraplegia, coxalgia and mutism may be artificially transferred from one person to another under the influence of a magnet, even when the two subjects are separated by a considerable distance, and are mutually ignorant of each other's presence.

A very interesting section is devoted to a review of several valuable papers on brain surgery and numerous instances are cited where remarkable recoveries have followed the use of the trephine, especially after traumatism.

Volume V contains a contribution from Dr. Spitzka on the anatomy of the

brain where "discoveries have been made in the morphological field which more than realize the wildest dreams of phylogeny." "Indisputable proof has been adduced that the pineal gland was originally the primitive eye of the Cyclopean ancestor of the Vertebrata."

Limited space forbids further notice of this work which cannot fail to be a valuable adjunct to any working library of medical literature. C. G. W.

Lectures on Nervous Diseases. By AMBROSE L. RANNEY, A. M., M. D., Professor of the Anatomy and Physiology of the Nervous System in the New York Post Graduate School, Professor of Nervous and Mental Diseases in the University of Vermont, etc. Published by F. A. Davis, Philadelphia, Pa., 1888.

We are glad to note that Dr. Ranney has published in book form his admirable lectures on nervous diseases. His book contains over seven hundred large pages and is profusely illustrated with original diagrams and sketches in colors, and with many carefully selected woodcuts and reproduced photographs of typical cases. A large amount of valuable information not a little of which has but recently appeared in medical literature is presented in compact form and thus made easily accessible. The author has brought within the scope of his book the entire range of nervous disease and dwells at some length on nervous anatomy and physiology. The section devoted to this latter subject is illustrated with numerous colored diagrams showing motor, sensory and special sense areas of the cerebral cortex, the location of ganglia and the courses of nerve fibres. Under "methods of examination employed in the diagnosis of nervous diseases," many valuable hints are given which can not fail to commend themselves to every medical reader. In an elaborate discussion of functional nervous diseases, the author declares his belief that a certain percentage of epilepsy, also neurasthenia, migraine and certain obstinate types of neuralgia are either caused, or greatly aggravated, by eye defects or certain conditions of eye strain, and cites numerous instances of marked relief, if not permanent cure, following the use of properly selected prisms or the operation of tenotomy.

The diseases of the brain and cord are concisely but quite thoroughly discussed, and the volume concludes with a very full chapter on the uses of electricity in medicine. In our opinion, Dr. Ranney's book ought to meet with a cordial reception at the hands of the medical profession for even though the author's views may be sometimes open to question, it cannot be disputed that his work bears evidence of scientific method and honest opinion.

C. G. W.

Sixteenth Annual Report of the New York State Commissioner in Lunacy (for 1888.)

The Commissioner reports entering upon his office May 24th, thus taking in but part of the year ending Sept. 30th. He recommends an amendment of the statute so as to require lunacy reports to be made directly to the Governor on or before December 1st, in order that their facts and suggestions may be directly utilized by the ensuing session of the legislature.

The whole number of insane in the State is 15,076, (excluding 852 idiots) of whom 1,914 are in State asylums for acute insane, 3,039 in the two asylums for chronic cases, 218 in the criminal asylum and 26 emigrant; while the institutions for both classes in New York and Kings counties contain

6,333; the exempted county asylums 1,586, thirteen private asylums (including Bloomingdale) 868, leaving in the county poor-houses of non-exempt counties only 483 patients. These statistics show an increase of 678 in the number of insane over the previous year.

The Commissioner recommends several amendments in the lunacy laws, among others, one providing for discharge or parole of patients from the two chronic asylums by a standing committee of the trustees,* at any time, instead of waiting for the quarterly meeting. Also in transfer of female patients from one asylum to another, requiring that they be accompanied by female attendants; also requiring all superintendents, &c., to report monthly to the Commissioner all patients admitted, discharged or transferred; and the annual report to be made by the 15th of October. The most important amendment, however, is one proposing to limit the Asylum for Insane Criminals to insane *convicts*, and those who have on trial in a court been acquitted only on the ground of insanity. Those under a *first* indictment for either crime or misdemeanor and found insane by an inquisition, may be committed by the court to any other asylum authorized to receive the insane.

We regret that we cannot concur in the Commissioner's proposed amendment. The question of conviction or non-conviction in these cases is generally a mere matter of chance or judicial preference, but the fact of crime committed remains unaltered and unalterable. The law as it stands at present answers an excellent purpose, and, after all, leaves the matter of transfer to Auburn at the discretion of a Justice of the Supreme Court, upon the application of the medical superintendent, who may, on his part, and in point of fact does, exercise like discretion in making such application. If we are to make hospitals for the insane attractive places of treatment for our brain-stricken relatives and friends, we must exclude from them, so far as possible, such persons as have committed grave crimes. Insane criminals happily bear a small proportion to the total number of insane in the State, and even though there be instances of occasional hardship, the greatest good to the greatest number ought surely to be kept constantly in view in lunacy administration.

On the great question of State care against County care the Commissioner gives briefly a few considerations *pro* and *con*, seeming to incline in favor of maintaining the county institutions for the care of the chronic insane both as entitled to the profits of their labor where they are supported, and as more accessible to their friends and relatives, who are also put to less expense, as well as the county, for travel and transportation. We remember that this argument was strongly urged at first against the establishment of one large depository of chronic insanity for the whole State at a single remote point. But has Willard proved a failure? Does it not stand rather as a brilliant vindication of the mixed asylum theory and as the best practical answer to the county argument?

The Commissioner, we are glad to find, recommends the practical abolition of the distinction between chronic and acute insanity, by urging the enlargement of the landed estate of each of the present asylums to a capacity for

---

*NOTE.—This practice is already in vogue at Willard, having been provided for by a special enactment.

1,200 patients, with annexes and groups of buildings for those able to perform labor. He quotes a liberal extract from Dr. Gray upon the benefits of labor to a large share of the insane, and thinks those benefits should be distributed equally to all our institutions.

This report contains a very full and complete description of the new Northern Asylum for the Insane at Ogdensburg, with plans of the buildings now in progress; and also of the new Asylum for Insane Criminals at Matteawan. The Commissioner believes that if none but convicted criminals were consigned to Auburn that institution would be of sufficient capacity. He finds the number of homicidal or suicidal patients in the existing asylums to be 262 men and 168 women. Besides these there are nearly 300 epileptics. He recommends the Matteawan asylum be called a *State Hospital* and used for these dangerous classes, instead of merely continuing the association of unconvicted persons with actual convicts that have become insane, as at Auburn.

We see much to commend the change of name. The suggestion, however, that all persons classed in asylums as *homicidal* and *suicidal* be regarded as "dangerous" and treated as such in a special institution would not commend itself, we imagine, to practical alienists. If this idea should be enacted in law, our State asylums would soon be sadly depopulated. Not only is it a fact that the words "homicidal" and "suicidal" have a special significance with asylum physicians as connoting alike thoughts, threats and attempts, thus swelling the number of apparently dangerous patients, but a person dangerous to-day may be harmless to-morrow, and conversely, a perfectly harmless person may suddenly develop dangerous tendencies. We trust the Commissioner will concede that herein also, to use a favorite phrase of his own, "there is room for an honest difference of opinion."

The Commissioner cites one or two cases at the Auburn Asylum of what he deems the necessity of a change in the law in regard to commitments to that institution.

The literary style and execution of this report we can commend as remarkably good.

FROM OUR FRENCH CORRESPONDENT.

The Medico-Psychological Society on *délire chronique*.

First among recent events in the field of lunacy in France, mention should be made of the important discussions just concluded by the Medico-Psychological Society, with reference to a morbid state to which Dr. Magnan proposes to give the name *délire chronique*.

To fully understand the nature and purport of these discussions, which have lasted nearly two years, it is necessary to go back to their point of departure and consider the ideas that gave them birth.

One of the principal tendencies of the scientific movement in France is to approximate to one another and group together all forms of insanity that possess evident affinities. This tendency is precisely contrary to that which prevailed but lately, and which consisted in multiplying indefinitely the number of morbid conditions. Thus one was led to give to each symptom the value of an entity; to study it by itself, independently of the conditions under which it arose, and without a thought for the connection it might have with other symptoms. Of such a state of affairs were born all those monomanias, of which a new variety received description almost every day.

To-day it is no longer thus. Everything that is but symptom is relegated so far as possible to its place, and instead of multiplying the number of morbid entities, we strive to reduce and simplify that number. This method of looking at things is evidently much more scientific, and has already conduced in a marked degree to the progress of mental medicine.

It is a task of this kind that Dr. Magnan and his pupils have recently set themselves. It has reference to the delirium of persecution and that of grandeur which, according to them, have not an isolated existence, as has heretofore been generally admitted, but form part of a complex aggregate of which they are the principal elements.

For more than thirty years the clinical type known under the name of delirium of persecution (*délire des persécutions*) and created by Lasègue, has been everywhere described as a well-defined morbid entity, having its own evolution, and consisting essentially in the production of certain delirant ideas which are in intimate and necessary relationship with hallucinations and disorders of

general sensibility. It is conceded, it is true, that in many instances the delirium of persecution is not strictly reduced to its essential elements, and that it may present itself in combination with other morbid manifestations; but these latter are regarded as superadded and as not necessarily forming an integral part of such delirium.

Thus, according to the remarkable researches of Dr. Foville, the fact has been recognized that the delirium of persecution may be the point of departure of a delirium of grandeur which owes its existence directly to the former. In this case the persecuted individual, in his search for the cause of all the occult misery of which he fancies himself the victim, comes to imagine that if people persecute him it is because he is a man of importance, a great personage of whom they are anxious to get rid, and henceforth he ascribes to himself the attributes of such great personage. According to Dr. Magnan, then, the connection thus existing between the delirium of grandeur and the delirium of persecution is not an arbitrary, accidental, but rather a necessary one, and he maintains that these two elements, always united, always consecutive, the one to the other, are the basis of a morbid state to which he proposes to give the name chronic delirium (*délire chronique*).

Chronic delirium comprises four stages in its evoiution. The first and second are those which have heretofore been attributed to the delirium of persecution. The third is the stage of ambitious delirium. Lastly, the fourth is characterized by loss of the intellectual faculties, by dementia.

Let us consider somewhat in detail each one of these stages and their mode of succession.

The first stage, that of incubation, generally passes unobserved. The patients are restless, troubled, self-introspective, giving themselves up to analysis of their own impressions, which latter are most frequently hypochondriacal in their nature. Soon they come to believe their surroundings to be unfavorable to themselves. They conceive suspicions in reference to everything that they see and hear, and interpret them accordingly. But their distrust is only general in character at this stage, and does not address itself to any particular person.

In the second stage the ideas of persecution unfold themselves with nicety and precision. The patient no longer confines himself to generalities: he specifies the persecutions of which he believes himself the butt, and names the individuals whom he fancies their authors. His delusions are otherwise entertained and accentuated

all the more by reason of an essential element—hallucinations. He believes that he actually sees, hears, feels and even touches that of which he complains. The hallucinations, which are the consequence of the delirium, serve at the same time the purpose of food, and contribute, according to circumstances, to its systematization.

Upon these ideas of persecution become grafted ideas of another sort, namely, ideas of grandeur—ambitious ideas. The advent of these constitutes the third stage of chronic delirium. The patients imagine themselves God, emperors, presidents, &c., and arrogate to themselves the most exalted dignity. This disposition marks the ultimate systematization of the delirium, and the definite transformation of the morbid personality. How do these patients arrive at these ideas of grandeur? By a kind of reasoning that is not without logic. If people persecute them, they say, it is because they have an interest in getting rid of them, and if they have this interest it must be because they are important personages. Arrived at this point, it is but an easy step forward to attribute to themselves, some, illustrious birth, and others, qualities superior to those of the common herd.

From this period onward chronic delirium advances to the fourth stage, that of dementia. The patient confines himself more and more within the scope of his delusional ideas; these in their turn become obliterated, and there remains, as final result, irreparable loss of all the intellectual faculties.

Such is chronic delirium in its salient features. Dr. Magnan and his pupils, notably Dr. Garnier, have brilliantly expounded their doctrine, and it must be acknowledged that the facts upon which they rely for support in a large measure warrant their deductions.

Yet, their main contention, namely, that of fusing into chronic delirium all that has heretofore been attributed to delirium of persecution or delirium of grandeur, is not absolutely justified, and the generalization of their doctrine gives rise to numerous objections. For instance, it is not true to say that all persecuted individuals pass through a delirium of grandeur before falling into dementia. There are certainly cases in which dementia occurs without the previous appearance of ambitious idea whatsoever Conversely, there are subjects of delirium of grandeur who have never exhibited a delirium of persecution. The delirium of grandeur which accompanies the delirium of persecution is not always the direct sequel of the latter. Lastly, whether it be a

question of delirium of persecution or of delirium of grandeur, together or apart, it is not rare to see their victims escape falling into dementia properly so-called. Whatever there may be of these and several other like objections, we must render none the less homage to Dr. Magnan's thesis.

At all events it establishes the fact that, under certain circumstances, delireant ideas (*idées délirantes*) of persecution and grandeur evolve in a definite order, and this evolution may be regarded as constituting a genuine clinical type.

The name "chronic delirium" is not happy, and lends itself to misapprehension. "Progressive systematic psychosis," proposed by Dr. Garnier, is somewhat better, but it is long and a trifle pretentious. Further researches must give precision to the morbid type and find for it a satisfactory name.

Competitive Examinations for Assistant Physicians.

The government has just issued an important decree with reference to the public insane asylums. It has decided that hereafter the office of assistant physician shall be subject to competitive examination. In principle this decree is excellent, granting that competition gives the positions to the most meritorious and that it can assure to the administration an educated medical *personnel*, really in keeping with its mission. But the decree as proposed is very imperfect, and one can foresee at the outset that it will not give the good results that one has a right to expect of it. In fact in order to attract candidates, improvement should have been made in the actual status of assistant physicians in asylums; especially should they have been given a guarantee that in future they alone should be vested with the functions of director and physician-in-chief. That not being the case, and as such functions may be discharged, in the future as in the past, by persons who have not necessarily passed through the grade of assistant physician, candidates will have before them a future but very uncertain and a position very precarious, nothing to tempt them to enter the lists of a *concours* always so trying. Moreover, the decree in question did not seem of absolute necessity. Up to the present time recruiting of the medical staff of asylums has occurred in accordance with the free choice of the administration, a choice which may be considered for the most part very felicitous, since the persons selected have discharged their functions satisfactorily and done honor to their duties as executive and medical officers alike, and have largely contributed to the progress of medico-psychological science.

Congress of Mental Medicine.

A congress of mental medicine will take place this year in Paris simultaneously with the Universal Exposition. While this congress is not international in character, we may hope that our foreign brethren will come and assist at it, as has happened at previous congresses of the same kind.

The committee of arrangements now being formed will prepare a programme replete with topics of the hour.

DR. VICTOR PARANT,
Director of the Hospital for the Insane,
Toulouse, France.

January, 1889.

FROM OUR BRITISH CORRESPONDENT.

The managers of this asylum have resolved to build a first-class asylum for high class paying patients on the historic site of old Craig House grounds, and a feud has arisen out of this proposal. Some allege that the whole asylum should be removed some miles into the country, while the party in power strenuously uphold the policy of having the asylum in the immediate vicinity of Edinburgh. It is held on the one hand that the presence of lunatics so near a city is a nuisance, that parole patients should not have the run of the city, and that the latter is encroaching on the present asylum site as well as the Craig House site to such an extent as to interfere with the amenities of the institution. On the other hand it is contended that the wisest policy, the most enlightened principles of treatment are to bring the insane into contact with sane life and interests, to brighten existence, abolish country seclusion and restraints and judiciously permit of association with the life of the outside world. The latter is the policy of such undoubted authority as Sir Douglas Maclagan, one of the medical managers, and Dr. Clouston, the able and gifted physician-superintendent, and it is the policy which will undoubtedly prevail. Edinburgh Royal Asylum.

This board which should have by this time built an asylum for twelve hundred patients is now about to dissolve; and in its place have appeared three new boards, Govan, City Parish and Lanark county, each charged with the duty of erecting an asylum of 400 or 500 beds for its own district. Already the Lanark District Board has bought from the old board the estate of Hartwood, originally intended for the large asylum of 1,200 beds, and costing originally £26,500. It has been rebought for £12,000 (there must have been a scandalous waste of money in the first purchase,) an architect has been appointed, plans are already prepared, and the building will probably be started in May. Glasgow District Board of Visitors.

Dr. Rogers, of Rainhill, Lancaster, has retired on a handsome pension and is succeeded by Dr. Wiglesworth, one of his old assistants, a man who has done excellent scientific work. Dr. Wickham, of Newcastle, has likewise resigned with a pension and is succeeded by Dr. Calcott, of Changes in English Asylums.

Durham. These and other changes possibly pending are the result of the passing of the English local government bill last session. This provides for the election of county councils and asylum governing bodies much more representative than of old; and those superintendents who could resign with a pension have done so, believing that the old boards would be more liberal in this respect than the new, and accepting by anticipation the truth of the old adage, "The devil you know is better than the devil you don't know." A local government bill for Scotland is on the stocks for this session, and it will in like manner propose to reform the government of Scotch asylums.

Death of Dr. Mackintosh.

Dr. Mackintosh had so long retired from active service that he is not likely to be known to the younger generation and asylum men. He preceded Dr. Yellowlees as physician-superintedent at Gartnavel, and retired on a pension of £600 per annum, fifteen years ago, after a long career of splendid service in the Dundee and Gartnavel asylums. He died a few weeks ago at the advanced age of eighty-four.

The New West Riding Asylum.

This splendid asylum erected at Menston, near Leeds, at immense cost, and opened a few months ago under the medical superintendence of Dr. J. G. McDowall, will be a feature of special interest to asylum physicians attending the meeting of the British Medical Association, at Leeds, next July. It is intended to accommodate 1,000 patients, is built on the echelon plan of asylum architecture, has extensive and spacious tile corridors, and lavish appointments, especially in the administration department. The tile work is said to have cost about £16,000, and is more a feature of asylum construction than it has ever been before. It is found not only in lavatories, water closets, kitchen, sculleries and passages, but is used for architraves, window facings, dados and other fittings which we have been accustomed to regard as the carpenters' work. Altogether the tiling is pushed to its furthest limits in this asylum, and æstheticism is rampant. The theatre appointments might reasonably excite the envy of a professional stage-manager.

A. Campbell Clark.

CORRESPONDENCE.

ACROPHOBIA.

Editors American Journal of Insanity:

GENTLEMEN—This letter, though addressed to you, is really intended for the translator of Dr. Verga's article on acrophobia, printed in the October JOURNAL OF INSANITY. Evidently the shock to his modesty involved in his personal confession was so great that his audacity was not equal to signing his real name to his communication. Since he desires to know whether his experience is exceptional, I make the same sacrifice of feeling with himself, and freely admit that I am no stranger to the sensation he describes, but have felt it hundreds of times in my life. I believe, however, that he withheld a portion of the truth, and was guilty of a sort of synecdoche—a medico-rhetorical figure of speech, so to say—and put a part for the whole, or the envelope for its contents. Unlike him, I am a stranger to the sense of fear; the occasions when I have felt this disagreeable and never-to-be-forgotten action of the nervous system are those on which my sympathies have been deeply stirred by the spectacle of the physical or mental sufferings of others. I do not think that with me the intensity of the sensation is comparable to his own. I doubt whether there is ground for his surmise that it is peculiar to acrophobists. It is more probably common to all persons who have a strong emotional nature, and who are possessed of vigorous but healthy sexual instincts. It belongs, I think, to the domain of mystery which surrounds the connection and interdependence of religious and sexual sensibility. But this is only a guess, and an unprofessional guess at that. The point is, that he has mentioned a fact which seems to have been unrecorded, but which, no doubt, if he could investigate it, he would find abundantly illustrated in the experience of multitudes of men. It seems to me to be analagous to the disturbance at the pit of the stomach in women.

I am, very truly yours,

A SYMPATHIZER.

JANUARY 18, 1889.

[Replying to the above, the translator detects, with humorous discernment, in the sympathizer's insinuation of defect of candor, an attempt to measure other people's corn in the individual bushel. What he wrote in description of his own sensations was the exact truth and the whole truth. That our

correspondent, under certain emotions, realizes, as to locality, and perhaps to quality, the same feelings as the translator has related, is not questioned, but that they are the result of acrophobia is clearly not the fact. In the translator's case the nervous commotion certainly belongs not "to the domain of mystery which surrounds the connection and interdependence of religious and sexual sensibility." He is well aware of such interdependence in at least the domain of morbid mentality, but finds himself utterly unqualified to decide to what extent it may pervade the realm of saintly enthusiasm.—EDS.]

"INSANITY *vs.* DIVILMENT."

[Although the following letter was not addressed to the JOURNAL OF INSANITY, it may not be unprofitable to print it in this department, as one addressed by an affectionate parent to a sorely stricken daughter who at the time was undergoing exorcism at the Utica Asylum. We give it *verbatim et literatim.*]

Dear Mary I drop these few lines to you hoping they may find you in good health as this leaves us thank god Dear Mar chear up you will be home soon I Will go to see judge West Brook this Week and fix the Papers so that you can come home But I Wont take no more of your Divilment from aney of ye if you come home you must Be study and Deacent Shun Bad Compeney and keep of the Street and Do What I tell you Sarah is runing with Bad compeney and if She Dont stop this Street runing and Bad Compeney I Will put her in the house of Coraction Sarah cant run over me this Way for I Will put her Where she Will have to Behave herself she is Doing nothing But runing the Street if she Wont Behave herself for me she Will for some other one she Dont Want to Work and when she get Work she wont keep it the onley thing she Dose is to run the street But I Will stop her of it Mary you Blaim me for sending you Where you are it Was yourself that sent Yourself you toled Dr. rob and father Mackincrow that you thaught of choaking yourself and other things it was yourself father Mackincrow and Dr. rob that sent you thair not me it is the Divelment you learned from your aunt maria and your mother that sent you their and the Doctors thair has no medicin to cure Divelment the Devil is a Bad compenion and a leader to hell and jesus christ is the father of heaven a good companion and Will lead to Heaven those that keep his commandments and do his holey Will Mary I have got red of your aunt maria for she is a Divel she cant come Where I am aney more and When you come home you must be a good girl and do What god and me tell you and you must have nothing to do with the Divel or aney thing that is in the servis of the divel Mary Sarah thinks that she can run over god and me But she Will find out she cant Mary your mother Will be to see you in a few days and Bring you home I am going to get you Bailed out and you must Be a good girl for the remainder of your life Mary you are and always was a Better girl than this Ignorant good for nothing Sarah But I Will make her Behave herself or I Will Put her Whair she will have to behave Mary We all send you our love and Best Respects May god be your Guide, Defender companion and Protector till I see you home and forever and may your good and Beloved redeemer jesus christ grant you

the grace of his holey love and the grace of a hapey Death and the hepness of heaven god be With you mary from your father J P. B. Please Write soon.

THE QUEBEC ASYLUM COMMISSION.

The Report Criticised by the Proprietors of Beauport.

Editors American Journal of Insanity:

Gentlemen—The last number of the American Journal of Insanity alludes briefly to the Report of the Royal Commission on Lunatic Asylums of the Province of Quebec. You will confer upon us a favor if you can afford to publish in your next issue the enclosed letter. It will give your readers a correct idea of the value of that famous report. Yours truly,

C. S. Roy,
Resident Physician.

Quebec Lunatic Asylum,
February 20th, 1889.

Quebec Lunatic Asylum, January 17, 1889.

To the Honorable C. A. E. Gagnon, Secretary of the Province of Quebec:

Sir—The undersigned proprietors of the Quebec Lunatic Asylum beg to submit the following memorial to you in connection with the report of the Commission on the Lunatic Asylums of the Province of Quebec and in answer to the observations contained therein.

I. The first fact to which the undersigned desire to draw your attention is the complete ignorance in which they have been systematically kept. The commission made its report more than six months ago; it has been printed and distributed more than six months ago. Copies have been distributed right and left; the members of the press have received them and comments thereon have appeared in the papers. While we, the interested parties, we who are directly violently and unjustly attacked by an apparent majority of the Commission, we who may have a refutation to offer, we who have rights to defend, and a reputation to vindicate, we are not even notified of the attacks against us or of the charges which have been made against us. We have been completely overlooked, and our accusers have not even had the courtesy to address us a single copy of the report published against us. We have reason to complain and to inform you of this strange and unjust conduct of which we are sought to be made the victims.

II. We have another complaint to allege, viz.: the injustice committed against us by the fact that during six months the public had in its possession the report of an apparent majority of the Commission on Lunatic Asylums, while it was kept in ignorance of the report of the minority of the same Commission. Without seeking the reason for the hasty publication of one document, while the other was surrounded by the most absolute secrecy, we believe that we can state that this difference in the treatment of both reports, if it

were not a studied difference, was calculated to do considerable harm to us. We do not wish to accuse, but we may be permitted to complain or at least to allude to this fact *en passant*.

III. At first sight the report of the Commission on the Lunatic Asylums of the Province of Quebec seems to offer the following characteristics:

1. It is not the report of the majority.
2. It is not based upon, nor accompanied by any vouchers.
3. It contains contradictions upon important points.
4. We may add, what a more profound study will permit us to establish, viz., that the report on the whole, is incomplete, unjust, a tissue of inaccuracies and of the most palpable falsehoods.

We will now proceed to prove our statements.

IV. That the Commissioners were not unanimous is evident, since two of the five members who composed the Commission have thought it their duty to establish their dissent by separating from their colleagues and signing a special report.

But, furthermore, we believe it is easy to establish that there is no report of a majority of the Commission. The one signed by three members of the Commission bears among the names that of Col. Rhodes, and this report gives the impressions and the appreciations of the three Commissioners, who declare that they visited the asylums for males and females at Beauport, the different asylums of Ontario, and a dozen asylums in the United States.

Now, as a matter of fact, we affirm that Col. Rhodes did not visit the female asylum at Beauport, and did not go with his colleagues of the Commission either to the United States or to Ontario. How, then, can he speak of his visit, as Commissioner, of what he has not seen; of what he could not have remarked; of those wooden bedsteads which do not exist in our asylum; of those straw mattrasses mentioned in the report, which are in reality hair mattrasses; of a thousand other things which a fertile imagination exhibits under the most fantastic aspects.

Not only did Col. Rhodes not visit the establishments of which he claims to speak with a full knowledge, but he did not even read the report which he signed, and we can prove that the Colonel has made to different persons the fullest admissions in this respect, stating that the report had been shown to him when completed; that only the heads of chapters had been read to him, and that he had signed trusting in his colleagues, without any further knowledge of its contents.

An investigation as to the manner in which the report of the Commission was prepared, drafted, signed, published, and as to certain attempts afterwards made to change its contents, would bring to light the most serious charges and would reveal to all what value should be placed on it.

V. One of the reasons which tends to diminish the importance of the report of the Commission on Asylums is the fact that it is unaccompanied by any vouchers, a detailed list of which is, however, given.

We have thus only the *ipse dixit* of the Commissioners and there is nothing to substantiate the truth of their statements.

It would be strange, however, to see whether the proof does not sometimes, and even frequently, contradict the allegations of the report.

Let us take as an example, the following statement, on page 53 of the report:

"As these visits (to the asylums) are only made at the request of the proprietors, or after the latter have been duly notified of the intended inspection, the inspectors are liable to be misled and to have erroneous and incomplete information given them."

We find at the end of the report, page 178, No. 46 of the appendix, documents R. R. and S. S., that the inspectors, Messrs. Desaulmers and de Martigny have given their evidence before the Commission.

Now, we have reasons for believing that if those depositions were printed we would have proof that the inspectors swore the contrary of what the Commissioners have stated and that the latter have simply fabricated what they say.

There are other surprises of this kind which the production of the vouchers can and would certainly bring to light.

VI. The vouchers moreover contain documents which it would be very important to see. The document for instance marked 40 in the appendix (page 178 of the report) would be a very strange document to read. Colonel Rhodes, who signed the report of the majority without having communication thereof, has himself made a special report, and it is this report which is marked 40.

There is also document 42, entitled "105 Memorial from the proprietors of Beauport on the subject of the instruction of the insane." We would like to know what we said on this subject, because we really do not remember ever having written on this interesting matter.

Document 37 (report from Dr. de Martigny upon the Belmont asylum) would also deserve to be published on account of the interest at present taken in the question to which it relates.

In a word there are a multitude of reasons why the public should be made acquainted with the contents of those documents which are for the most part quite the reverse of the facts contained in the report of the Royal Commission.

VII. Permit us now to call your attention to the errors in the figures given by the Commission.

Open the report at page 10. Read the first line only—

1886—Admissions this year—cures—average, 32 p. c.

Your Commissioners desire thereby to prove that the percentage of cures at Longue Pointe was 32 per cent.

What are the real figures? We give them as they are and as the Commissioners could have found them on page 63 of the 17th report of the Inspectors of Prisons and Asylums, a document which they state they have examined—

1886—Admissions, 231; cures, 46; average, 19.91 p. c.

The difference between the true and the incorrect figures is really an appreciable quantity.

We shall take the liberty of transcribing here from the table on page 17 the general percentage of the cures out of the number of admissions; we shall place the correct figures after the incorrect ones, as we found them in the reports referred to by the Commissioners themselves:

United States.	Admissions.	Cures.	Percentage. Figures of Com.	Correct figures.
Utica	374	97	27.32	25.93
Auburn,	75	17	37.00	22.55
Blackwell's Island,	653	121	31.37	18.53
Buffalo,	295	77	20.14	26.10
Bloomingdale,	202	42	36.16	20.79
Athens, Ohio,	365	102	47.47	27.94
Columbus, Ohio,	291	133	48.33	45.70
Burn Brae,	10	2	40.00	20.00
Norristown,	427	105	32.00	24.59
Philadelphia,	327	41	45.00	12.53
Southern Illinois,	167	50	41.46	29.94
Concord,	143	32	37.00	22.37
Baltimore,			32.31	
McLean Asylum,			30.48	
Washington,	268	72	36.08	26.86
Tuskaloosa,	222	79	49.57	35.59
Middletown,	361	73	49.53	20.22

Is it possible to suppose for an instant that men who must have learned the simplest rules of arithmetic can commit such blunders involuntarily? Whether voluntary or not, the errors exist, the report is full of them and we affirm that it is really impossible to rely on any of the figures given therein.

VIII. Our intention was to answer in detail all the assertions contained in this report, a veritable tissue of the grossest errors. But to do this we would have had to write a complete volume.

Let it suffice for the present to call your attention to our annual report, which we send you this day. You will find therein figures upon the accuracy of which you can rely.

We, moreover, beg of you as a simple act of justice, to disregard this report of the commission on asylums, because it is partial and untrue, because it does not even express the views of a majority of the commission.

Further, as our institution has been violently and unjustly attacked, we desire to re-establish the true facts of the case, to meet our accusers and refute their calumnies.

To attain this end we demand an investigation before a committee of the Legislative Assembly. Regard for our reputation, the honor of our institution, suggests this line of conduct to us, and on your side, if you wish to be just and fair, as we have no doubt you wish to be, you will obtain the investigation which we believe we have the undeniable right to demand.

We have the honor to be, sir,

Your most humble servants,

J. D. Roy,
Ph. Landry,
G. A. La Rue.

NOTES AND COMMENTS.

Dr. Joseph Workman.—This quarter we present the portrait of one of the most eminent of America's alienists. To all, the name of this gentleman is familiar through his writings and translations, but to most of the present generation of alienists, he is personally unknown, as for many years his once familiar face has been absent from the meetings of the Association of Superintendents. Those who have been fortunate in being acquainted with him can easily understand the reverence that exists for Dr. Workman among his pupils and friends, and the love that is shown for him by the medical profession of Canada must be gratifying to him in his declining years. A few weeks ago when his oil painting was hung in the Hall of the Ontario Physicians and Surgeons, by members of the Toronto Medical Society, he must have felt that the token of esteem was as full of meaning as the laurel to the Grecian victor.

Dr. Joseph Workman was born in Lisburn, Ireland, in 1805, emigrated to Canada when a young man, and graduated at McGill College in 1835. In 1836 he began the practice of medicine in Toronto, and soon attained a prominent position among the physicians of that city, and through his writings in the press on the burning political questions of the hour was recognized as one of the leading spirits in the country. It is with his career as an alienist we are chiefly interested at this time.

At eighty-four Dr. Workman has the appearance of a man who has perhaps reached his sixtieth year—and his mental activity is even more remarkable than his bodily vigor. He is one of the men who never grow old, and although the inevitable griefs and trials that must come to those who live long and unselfish lives have tempered his enthusiasm in certain directions, still it is doubtful if Canada can to-day claim any man who is a keener student in medicine than Dr. Joseph Workman. He gives himself no repose, unless it may be said parodoxically that in unceasing toil his brain finds rest.

In medical circles his name is reverenced and placed at the head of the list of those workers, who have without striving for personal distinction, achieved success and a reputation founded on good deeds performed in the interests of humanity. All men seem to vie with each other in according him the veneration that

is unconsciously demanded by his presence, and to young men he is peculiarly attractive. They are drawn to him by a species of magnetism so rare that to discover it once is the experience of a life-time. No young man has known Dr. Workman intimately without feeling that he has encountered an influence that must make an enduring impression for good on his whole future, and he knows he has found a friend who will sympathize with his enthusiasms, gently guide him past unthought of dangers, and when the time of trouble comes will not forget him.

All men who fearlessly fight for right and bravely perform their duty must make enemies. Dr. Workman, it is almost unneccessary to say, has made enemies in his journey through life, but these enemies have generally been found among those who were defending what was wrong. His hatred of shams of all kinds has been intense, and as his ability to write the most caustic English is as great as his ability in other directions, he is an opponent to be dreaded. By accident, it might almost be said, he drifted into asylum life, and when he took charge of Toronto Asylum in 1853 encountered trials and difficulties that would have daunted the ordinary mortal. He saw where the path of duty lay, accepted his burden at a great personal sacrifice, and for twenty-two years performed a task that was for him the thanks of thousands of the insane and their relatives. What his devotion to the unfortunates in his charge meant, only those who knew him intimately can explain. He was a slave to the interests of the insane, and toiled early and late. For months at a time he shut himself from the outside world, so great was his devotion to the cause in which his sympathies were enlisted. His face was rarely seen outside of the asylum grounds, and his one great aim seemed to be to make life brighter for his patients. His personal magnetism in the wards was wonderful, and to hear Dr. Workman talk to his patients was a sharp reproof to any officer who had adopted the perfunctory methods of officialdom. No personal inconvenience was too great to endure so long as his patients were happy and their worries, real and imaginary, lessened.

For many years his brother Benjamin, or "Uncle Ben" as the patients used to call him, was associated with him as assistant, and together these gifted philanthropists established a reign in Toronto asylum that made the institution an ideal one, and did much to raise asylum methods in Ontario to a high standard of excellence. Although Dr. Workman as a young man was an ardent politician, yet he never was a believer in the so-called political methods, that

have to-day become the curse of many asylums, and time after time have caused the sacrifice of the interests of the unfortunate insane to the demands of that heartless sham, styled political exigency. He steadfastly resisted any attempts made to convert the asylum into a machine to pacify the demands of political office seekers, and so strongly did he feel on this point, that he would willingly have sacrificed his position rather than wink at the perpetration of a wrong. After twenty-two years of faithful service he began to chafe in official harness, and longed for rest, and the decision to leave the service once made, was soon carried into practice. There was nothing to put in order—the institution was in excellent condition, the running gear well oiled—harmony in every department and an *esprit de corps* among the officials that argued well for the comfort of a successor. Why any enemy years after, should have tried to throw doubt on the condition of Toronto asylum at the time of Dr. Workman's resignation is one of the mysteries difficult of explanation, especially in view of the fact that overwhelming testimony to the contrary is to be found on every side. However the covert slander has long since been resented by a host of friends and consigned to the oblivion it deserves.

For many years Dr. Workman was much criticised by the legal fraternity and press, for his theories in regard to "insanity and crime," as he fearlessly maintained the medical view of responsibility in mental disease, and boldly attempted to stay the popular demand for the blood of homicidal lunatics. As a witness he is unapproachable and the lawyers of Canada have long ago learned that there is at least one medical expert who can not only enforce their respect when under examination, but can also cover with confusion any facetious attempts to divert him from his fixed purpose.

Gifted with a command of beautiful language, a wit as keen as a Damascus blade, having a perfect grasp of a man's mental attitude, and a profound knowledge of science, it can easily be understood why he is *facile princeps* among witnesses.

Dr. Workman's contributions to alienistic literature have been many. In Europe his name is well known and he has been made an honorary member of Medico-Psychological Societies in Britain and in Italy. He has always insisted that the Italian school of alienists has been doing an invaluable work for science, and through his translations we have been able to verify this opinion. It is a pity that he has not given the world more extended writings than the fragments that from time to time suggests the mine of

knowledge at his disposal, and this is all the more to be regretted as he is not only an accomplished scholar but has a wonderful command of beautiful and terse English. To his innate modesty and constant desire not to obtrude his opinion on the outside world, must be attributed his failure to publish any work of magnitude, and valuable as his translations from the Italian and German have been, his many friends have felt that he would have benefited science even more by adding more of his personal experience to the mass of medical literature. We must not, however, be unkind although Science makes us so selfish in her interests, and leads us to forget for an instant the cares of that constant toiler who has lived, not for himself but for others.

May his declining years be filled with a peace and happiness, commensurate with the good deeds that have proved the golden rule to be the simple creed of his life. C. K. C.

The Annual Meeting of the Association.—Owing to the illness of Drs. Kilbourne and Patterson, the place and time of meeting of the Association of Medical Superintendents of American Institutions for the Insane have been changed from Chicago to Newport, R. I., June 18, 1889.

Drs. Cowles, Curwen, Fisher, Gorton and Channing, have been appointed a committee of arrangements, the last-named being secretary. It is hoped that there will be a goodly number of papers, and the suggestion is made that they do not much exceed half an hour in length, to the end that discussion may be as full as possible. A cordial invitation to prepare papers is extended to assistant medical officers.

Machine Politics in Asylums.—This journal has frequently deplored the important part played by the political machine in the administration of lunacy affairs in some of the western State hospitals for the insane. A recent development of this unfortunate tendency appears in the State of Illinois. Our readers will be astonished to hear of a movement at Anna, Ill., to oust Dr. Horace Wardner from office, not on account of, but because of a lack of "offensive partisanship." We find four counts in the indictment against him drawn up in the form of a numerously signed petition addressed to His Excellency, Governor Joseph W. Fifer. This remarkable arraignment is worth printing:

We, the undersigned, Republicans of Union county, desire a change in the management of the Illinois Southern Hospital for the Insane, and would ask

your Excellency to grant this request for several reasons, among which are:

(1.) The institution is largely controlled by Democratic influences.

(2.) Many Democrats have received employment in preference to worthy Republicans and even deserving old soldiers.

(3.) The institution has been managed in the interests of political aspirants and favorites, nepotism being largely practiced.

(4.) It is to the interest of the Republican party of southern Illinois that an entire change be made in the board of management of said institution.

Local newspapers tell us further that Dr. Wardner does not contribute with sufficient liberality to the campaign funds, and does not use his efforts to advance party interests as he should; that he does not inquire into the politics of employés, but appoints them regardless of their political affiliations and antecedents; that he, a Republican, buys supplies of Democratic dealers; that relatives of the officials are favored in making appointments to positions; that the employés are induced to support favorite candidates for nomination to office, &c. With the merits of this complaint we have nothing to do, though we hope much of it is well-founded in fact. But surely we have a right to protest against the use or rather the abuse of charitable institutions as a lever in politics, and to respectfully call the attention of the spoilsmen of Anna and its neighborhood to the fact that we are living in the year of our Lord, One Thousand Eight Hundred and Eighty-Nine, and in the year of Independence, one hundred and thirteen.

Right on the heels of this scandal comes another of more magnificent proportions from Indiana. Mismanagement and corruption at the Indianapolis Asylum have been rife for several years. Last session of the legislature (1887) an investigation was instituted but the committee disagreed. Things grew worse and worse. Another joint committee (five Democrats and four Republicans) only made a small hole in the crust of hospital corruption, yet it disclosed enough to overwhelm the committee, a majority of whom were expected to cover up, for party purposes, anything offensive that might be unearthed.

The present state of affairs is about this: The legislature of Indiana is Democratic, the governor Republican. In order to prevent the hospitals from falling into Republican hands, the legislature elected a new board, naming the men. The governor denies the authority of the legislature to make appointments under the constitution, and refuses to commission men named as trustees

of the hospital by them. Meanwhile the old board holds on to office till its successors are qualified.

In the Summary, under Indiana, may be read the findings of the committee of the legislature as the report of its recent investigation. If only a fractional part of the allegations therein made be true, it reveals a state of affairs that will bring the blush of shame to all workers in the field of lunacy who possess the vestige of a sentiment of decency and self-respect.

PATHOLOGICAL WORK AT MCLEAN ASYLUM.—We learn from advance sheets of Dr. Cowles' report that much encouragement has been given to the desire to enlarge the medical work of the McLean asylum by the considerate and generous action of the trustees, for the establishment upon a better basis of the pathological department. It is proposed to add to its laboratory means for the practical study of experimental psychology in connection with the clinical work in the wards. The lines of inquiry are to be in the branches of that "new psychology," of which our contemporary, the *American Journal of Psychology* is so able an exponent.

"The asylum study of these problems may include, besides pathology, 'what the nervous system can do' both in health and disease, whatever is open to mechanical experiment in physical and mental phenomena of nervous action, and whatever pathological psychology may present for analysis and explanation. It is hoped that some small result may be yielded by the attempt to coördinate these several lines of investigation in a psychological laboratory in direct relation with the manifestation of morbid psychology. The plan of conducting this new department provides for an annual visit to Europe by the officer in charge of it, for a few months study and observation of the methods of carrying on investigations of this kind in special laboratories and elsewhere."

McLean Hospital shows a commendable zeal to occupy the forefront in all that pertains to scientific psychiatry.

OUR FRENCH LETTER.—Readers of the *Annales Médico-Psychologiques* and other current French medical literature, are familiar with the name and work of Dr. Victor Parant, the distinguished medical director of the Toulouse Asylum. It is with great satisfaction that the JOURNAL OF INSANITY announces that it has secured the services of this gentleman as its French correspondent.

Dr. Parant contributes to this issue his first letter, composed in the admirable style and spirit of the *Chronique* of the *Annales*. By way of exchange this journal will contribute to our French contemporary a regular letter from the pen of Dr. C. B. Burr, Assistant-Superintendent of the Eastern Michigan Asylum, Pontiac. An exceedingly readable budget from Dr. Burr will be found in the *Chronique* of the *Annales* in its number for March. Arrangements having been made with other European alienists on a like basis of collaboration, the JOURNAL hopes to give permanency and wider scope to this scheme of international news-dealing in future numbers.

SIGNS OF THE TIMES IN KANSAS.—The legislature just adjourned passed some very singular acts. One in which the readers of this journal will be interested provides that whenever charges shall be made by any person or persons and circulated within the State, or presented in writing to the governor, when the legislature is not in session, whereby the management or administration of the affairs of any charitable, educational or penal institution, or the official conduct of any officer connected with such institution, be called in question, the governor shall order an investigation if said charges be deemed worthy of credit or emanate from a reliable source. This investigation shall be by a committee of the legislature to be appointed by the governor, the president of the senate and the speaker of the house. The party accused shall be notified and immediately *suspended*, by the governor, to be dismissed or reinstated by him upon report of the committee!

This act virtually puts the governor at the head—in fact above the head—of every board of trustees in the State, so far as appointment or rather removal of officers—whose appointment is by law in the hands of the boards—is concerned. In the hands of a judicious, conservative governor no harm may come from this law, but if any governor wishes to make political changes, he could not ask for any better opportunity. That the framers of this law had in mind its political power is evinced by the fact that another bill was introduced changing the term of office of trustees of charitable institutions to two years, (the present term is three years and appointments are made yearly,) and making their commissions all terminate with the incoming of each biennial governor! The argument was made, inasmuch as the governor is at the head of State affairs, let each governor have an opportunity of appointing new boards upon taking his seat.

It is to be regretted that the tendencies, especially in these States where the charitable institutions are supported by direct State appropriation, are towards making these institutions part of the political machine. Such institutions are supported by the whole people for the benefit of the whole people, and are not the exclusive property of any party and ought not to be administered on a partisan basis. Neither in a State like Kansas, where the party politics is all on one side, should the trustees be selected from the one party, nor should incoming administrations have the opportunity of inaugurating sweeping changes. When the acts referred to were under discussion an amendment was offered providing that a portion of the board should be of the political party in the minority, but it was overwhelmingly rejected. It would be greatly to the benefit of the charitable institutions if the term of office of the board of trustees were lengthened, and if, by law, the political minority should be represented thereon.

All the Kansas charitable institutions are crowded, and no appropriation was made for material enlargement of any of them, and appropriations for support were generally cut down to too low a figure. The insane asylums, with 730 patients at Topeka, and 505 at Osawotamie are full, and unable to meet the demands upon them. *

Audi Alteram Partem.—The report of the Michigan Asylum for Insane Criminals, at Ionia, contains, in addition to the statistical matter usually embodied in such reports, a table showing comparative recovery and mortality rate in forty different asylums in the United States. It cannot fail to be gratifying to the officers of this institution that its percentage of recoveries to the average daily population as well as to the total number under treatment, is well up to, or above the general average, while "in percentage of recoveries to the total number admitted," this stands at the head of all asylums of the country with which comparison is made. But one institution shows a much lower rate of mortality, and this the Asylum for Insane Criminals at Auburn, N. Y., presumably populated by a similar class of patients, (3.3+ percentage to the average daily population, and 2.5+ percentage to the total number under treatment as against 5.5+ and 4.4+ respectively, for the Michigan Asylum for Insane Criminals.) The officers of the institution are deserving of congratulation upon one recovery from epileptic insanity, and the highly successful results attained in the treatment of paranoia. No less than three out of five

patients of the latter class have been discharged "recovered"—the remaining two having "improved." In view of this showing, it can scarcely be denied that the prospects for recovery of patients suffering from psycho-degenerative disease are materially enhanced. We cannot refrain therefore from expressing condolence upon the fact that death removed the only patient of the imbecile class discharged. Who can predict what might have been accomplished for this patient had the duration of his treatment been months or years instead of days?

Under other circumstances we might have maintained a dignified silence with reference to the results of treatment at Ionia under homœopathic management, or ascribed them in all charity to mistaken diagnosis, at all events so far as paranoia is concerned. The recent publication, however, in the Rochester *Democrat and Chronicle*, of the annual allegation of the Middletown authorities that the percentage of recoveries is higher in that institution than in the other State Hospitals for the Insane, suggests the propriety of looking well to our laurels, and prescribes a limit to diffidence, reticence and forbearance as journalistic virtues.

The statement in question is contained in a paper read by Dr. Selden H. Talcott, at the meeting of the Western New York Homœopathic Society at Rochester, on April 10, and here it is:

> For several years the experiment of treating mental and nervous diseases homœopathically, has been carried on in one of the State asylums of this Commonwealth of New York. We believe that the old-school asylums of this State are as ably managed, and we believe that their fortunes are presided over by as brilliant, distinguished, learned and enthusiastic medical men as can be found anywhere in similar positions in the United States. And yet, the results attained in the old-school asylums and the new-school asylum for the acute insane, during the past six years, present, when compared, a striking contrast in favor of homœopathic medication. These results are as follows:
>
> Utica, Buffalo and Poughkeepsie Asylums (old school):
> Percentage of deaths on whole number treated,..... 6.00
> Percentage of recoveries on number discharged, ... 27.23
>
> Middletown Asylum (new school):
> Percentage of deaths on whole number treated,..... 4.40
> Percentage of recoveries on number discharged,..... 48.92
>
> The aforenamed results were attained during a period of six years ending September 30, 1888.

While acknowledging the subtle compliment in the author's concession of merit to superintendents of the "old school" asylums, we must not be beguiled into losing sight of the artful thrust that

follows. Let us examine into this "striking contrast" in our own way and allow the figures to speak for themselves.

The key to the situation lies mainly in a method of figuring at Middletown. At Buffalo, Poughkeepsie and Utica percentages are figured on the admissions, while at Middletown they are calculated on the discharges.

The following table gives a comparison of results obtained at the Middletown and Utica Asylums during the first fifteen years of their existence:

Percentages Figured on Discharges. Method at Middletown.	Total No. Discharged.	No. Disch'd Recovered.	Percentage.
Middletown,	1,938	908	46.85
Utica,	4,580	2,112	46.11

Percentages Figured on Admissions. Method in other State Asylums.	Total No. Admitted.	No. Disch'd Recovered.	Percentage.
Middletown,	2,391	908	37.97
Utica,	5,065	2,112	41.69

With reference to the deaths, it will be observed that while the percentage of recoveries is figured on the number of discharges, that of deaths is estimated on the total number treated. In both cases the best showing is made by such calculation. In other State asylums the percentage of deaths is figured both on the total number treated and on the number of admissions. The percentage of deaths on the whole number treated at Utica since its opening is 5.40 per cent.

The following table gives the percentage of deaths at the Middletown and Utica Asylums during the first fifteen years of their existence:

	Whole No. Treated.	No. Died.	Percentage.
Middletown,	5,454	262	4.80+
Utica,	10,737	605	5.63+

It is also important to remember that the two asylums receive different classes of patients. At Middletown during the past ten years there have been admitted 1,814 patients, of which number 1,140, or 62.84 per cent had been insane less than one year. At Utica, during the same period, there were received 4,024 patients, of which number only 2,208 had been insane less than one year, or 54.87 per cent.

The report of Middletown does not show any cases discharged as "not insane last year." There are probably admitted cases of alcoholism, opium habit, etc., of which class the other State asylums (and

presumably Middletown also) receive a goodly number. It is fair to surmise that these cases are classed as recoveries, and thus made to swell the recovery rate. Furthermore, Middletown does not transfer a large number of patients to asylums for the chronic insane, and in this way is able to make for itself a better showing in figuring percentages on discharges as regards recoveries.

The following table gives the statistics of the Utica Asylum from the date of its opening in 1843, from which it appears that the percentage of recoveries estimated on discharges is 36.63 per cent:

	Total.	No. Discharged Recovered.	Percentage.
Admissions, ...	16,974	5,994	35.31
Discharges, ...	16,361	5,994	36.63

This falling off from 46.11 per cent (percentage during the first fifteen years) is due to several causes. First and foremost, to a better knowledge of insanity on the part of the profession, and as a consequence, a greater conservatism on the part of asylum statisticians. There is less disposition nowadays to expand the list of asylum recoveries with dubious cases. Secondly, it is well known that diseases of the brain have tended more and more to degenerative types in later years; and thirdly, the diminution is due in large measure to the transfer of a large number of patients annually to asylums for the chronic insane.

Even admitting, which we are not prepared to do, the fact of a higher ratio of recovery at Middletown, does the superintendent really expect us to believe that that difference is due to the specific action of homœpathic remedies on the mind diseased? Give ear, for instance, to the alleged virtues of *apis mellifica* as laid down in his latest report. Its special sphere of action is "mental stupidity with occasional periods of restlessness and screaming; jealousy in women, who suffer with sharp pains in the ovaries, *especially the right*" (italics ours). One would naturally infer from its name that *apis* might be a good thing for that essentially Scotch, if somewhat ill-defined, psychosis, known everywhere north of the Tweed as "a bee in the bonnet," but of this suggestive application of the doctrine of similars nothing is recorded.

Equally remarkable are the results claimed for *conium maculatum*. Its special sphere of action is "senile dementia, mental weakness, loss of memory, peevishness, vertigo. It is useful where persons suffer from the ill-effects of ungratified sexual desire; it is therefore, useful in relieving the ailments of old maids, of widows and widowers, of old people generally and those who have a ten-

follows. Let us examine into this "striking contrast" in our own way and allow the figures to speak for themselves.

The key to the situation lies mainly in a method of figuring at Middletown. At Buffalo, Poughkeepsie and Utica percentages are figured on the admissions, while at Middletown they are calculated on the discharges.

The following table gives a comparison of results obtained at the Middletown and Utica Asylums during the first fifteen years of their existence:

Percentages Figured on Discharges. Method at Middletown.	Total No. Discharged.	No. Disch'd Recovered.	Percentage.
Middletown,	1,938	908	46.85
Utica,	4,580	2,112	46.11

Percentages Figured on Admissions. Method in other State Asylums.	Total No. Admitted.	No. Disch'd Recovered.	Percentage.
Middletown,	2,391	908	37.97
Utica,	5,065	2,112	41.69

With reference to the deaths, it will be observed that while the percentage of recoveries is figured on the number of discharges, that of deaths is estimated on the total number treated. In both cases the best showing is made by such calculation. In other State asylums the percentage of deaths is figured both on the total number treated and on the number of admissions. The percentage of deaths on the whole number treated at Utica since its opening is 5.40 per cent.

The following table gives the percentage of deaths at the Middletown and Utica Asylums during the first fifteen years of their existence:

	Whole No. Treated.	No. Died.	Percentage.
Middletown,	5,454	262	4.80+
Utica,	10,737	605	5.63+

It is also important to remember that the two asylums receive different classes of patients. At Middletown during the past ten years there have been admitted 1,814 patients, of which number 1,140, or 62.84 per cent had been insane less than one year. At Utica, during the same period, there were received 4,024 patients, of which number only 2,208 had been insane less than one year, or 54.87 per cent.

The report of Middletown does not show any cases discharged as "not insane last year." There are probably admitted cases of alcoholism, opium habit, etc., of which class the other State asylums (and

presumably Middletown also) receive a goodly number. It is fair to surmise that these cases are classed as recoveries, and thus made to swell the recovery rate. Furthermore, Middletown does not transfer a large number of patients to asylums for the chronic insane, and in this way is able to make for itself a better showing in figuring percentages on discharges as regards recoveries.

The following table gives the statistics of the Utica Asylum from the date of its opening in 1843, from which it appears that the percentage of recoveries estimated on discharges is 36.63 per cent:

	Total.	No. Discharged Recovered.	Percentage.
Admissions, ...	16,974	5,994	35.31
Discharges, ...	16,361	5,994	36.63

This falling off from 46.11 per cent (percentage during the first fifteen years) is due to several causes. First and foremost, to a better knowledge of insanity on the part of the profession, and as a consequence, a greater conservatism on the part of asylum statisticians. There is less disposition nowadays to expand the list of asylum recoveries with dubious cases. Secondly, it is well known that diseases of the brain have tended more and more to degenerative types in later years; and thirdly, the diminution is due in large measure to the transfer of a large number of patients annually to asylums for the chronic insane.

Even admitting, which we are not prepared to do, the fact of a higher ratio of recovery at Middletown, does the superintendent really expect us to believe that that difference is due to the specific action of homœpathic remedies on the mind diseased? Give ear, for instance, to the alleged virtues of *apis mellifica* as laid down in his latest report. Its special sphere of action is "mental stupidity with occasional periods of restlessness and screaming; jealousy in women, who suffer with sharp pains in the ovaries, *especially the right*" (italics ours). One would naturally infer from its name that *apis* might be a good thing for that essentially Scotch, if somewhat ill-defined, psychosis, known everywhere north of the Tweed as "a bee in the bonnet," but of this suggestive application of the doctrine of similars nothing is recorded.

Equally remarkable are the results claimed for *conium maculatum*. Its special sphere of action is "senile dementia, mental weakness, loss of memory, peevishness, vertigo. It is useful where persons suffer from the ill-effects of ungratified sexual desire; it is therefore, useful in relieving the ailments of old maids, of widows and widowers, of old people generally and those who have a ten-

dency to paralysis, especially in the lower limbs; also for children who appear to be prematurely old." Again, lachesis is another phenomenal remedy. "The lachesis patient thinks himself under superhuman control; also thinks himself dead and that preparations are being made for a gaudy funeral." Its special sphere of action is "insanity following fevers of a low type; *left sided paralysis* (italics ours), mental depression accompanying climacteric disorders in women."

We know Dr. Talcott too well to believe that he ascribes his satisfactory results at Middletown to these singular therapeutical agencies. It will occur to many that there is, perhaps, little essential difference between his position and nihilism in medicine elsewhere, and the institution at Middletown goes far to show what can be expected from the modern reaction, everywhere apparent, against old-fashioned polypharmacy in treatment. After all, the mere administration of drugs, "old school" or "new school," is but a small part of medical treatment in hospitals for the insane. Like Dr. Clouston of Edinburgh, Dr. Talcott proclaims from the housetops the gospel of fatness, and so long as something like the liberal diet prescribed for Mr. W. L. P. (*vide* Report of the New York State Lunacy Commissioner, 1888)* is obtainable at that institution, few of us, we apprehend, would object strongly to treatment there, even though we might have to swallow, as the price of our residence, occasional doses of apis mellifica, lachesis, or conium maculatum, as the case might be. All we ask is that we be allowed to "Live and let live" and have fair comparisons (not alleged *striking contrasts*) made between the respective schools, both of which have, we trust, the same end in view and are honestly striving to do all in their power for the welfare of the insane. Let us be generous and broad-minded, the one to the other, and not quarrel over non-essentials or attempt to establish, in medical papers before medical societies, a superiority of method and superiority of result. Almost any proposition can be apparently proved by an astute statistician, but

> "Facts are chiels that winna ding,
> "And downa be disputed."

* Breakfast, one goblet of hot barley meal porridge, one goblet of hot corn meal pudding, one goblet of hot cocoa, one bowl of hot milk and cracked wheat, two eggs. Dinner, one goblet of hot maccaroni, one goblet of hot rice pudding, with sugar and cream, one bowl of hot Julien soup, two Florida oranges. Supper, one goblet of hot corn meal mush, one goblet of hot rye mush, one goblet of hot wheat mush, one bowl of hot rye flour, two eggs. This is a fair sample of his every day fare, although there are some variations from day to day.

THE CASE OF RICHARD BARBER.—We have received the following interesting letter from Dr. Thomas Blasson who will be remembered by readers familiar with the Barber trial* as the English physician who furnished by commission such astounding testimony of hereditary predisposition to, if not of actual, insanity in the prisoner:

BILLINGBORO, FALLINGHAM, LINCOLNSHIRE, ENGLAND,
24 March, 1889.

DEAR SIR—The case of Richard Barber presents symptoms and absolute proofs of hereditary cerebral disease.

I am most interested, like yourself, in this case. I know the whole of his family and its pedigree, and I can positively state that a more complete outcome of the *vis consanguinitatis* I never saw. Why, from generation to generation there is a whole and perfect history of cerebral mischief! The letter which particularly shows his mental state has been forwarded to the solicitor, Mr. Davis, and therefore it is most likely in your hands before this. I speak with some assurance about this case as I brought this poor wretch into the world (as the saying is), and have been the medical attendant of his grandfather, grandmother, father, mother, aunts and uncles, cousins and second cousins, and other collateral relations for thirty-three years, and I never knew a family history so charged "up to the hilt" with direct hereditary cerebral disease. There is no doubt that the public have a very little power of comprehending the terrible force of transmitted brain disease: its thousand varieties; its marvelous peculiarities and its subtle developments. But we as medical men are perfectly assured of all this, and there is no question that the very suddenness, the *spasm*, so to say, of Richard Barber's crime, points to a condition of brain that is now *for the first time* asserting its hereditary development. There are hundreds of cases of the same species; but this case appears with so sudden a development that a jury (non-medical) calmly condemns him to death as if the taint of hereditary disease were absolutely absent instead of being absolutely present in its *every essential*. There is not one member of his family who is safe from a spasm of insanity, though some may, as yet, not have developed signs of it. An exactly similar case was tried in our court the other day, where the cook on board a fishing-smack "without rhyme or reason" suddenly rushed at the skipper and stabbed him. This criminal was the subject of epileptic fits. I may say that this case has happened long after the

* Vide JOURNAL OF INSANITY, January, 1889.

one of Richard Barber, and tends to prove our (or my) history of hereditary disease.

I gave a full history of all I knew of the prisoner and his family, and nothing will make me believe that a man who has borne a good and satisfactory character; who has become respected, and has ever been a steady and honorable man, *but* (ah! that "but,") who has a pedigree of cerebral *hereditary* taint such as this man Barber has, and who *suddenly* develops a murderous propensity; I say nothing would make me attribute this to anything but a mental distortion—epileptic frenzy most likely. I wish I could run over to America and offer my testimony. I have no sympathy with a deliberately murderous villain; but there are many cases which *ought* to be housed in an asylum, and that's one, in my humble opinion.

Believe me to remain, my dear sir,
Yours most faithfully,
THOMAS BLASSON.

The following is the letter written by Richard Barber to his mother referred to by Dr. Blasson. It will be recognized as showing the earmarks of epilepsy, and if the author is feigning insanity, as the prosecution would have us believe, he is surely acting his part with consummate skill and life-like presentment. It is significant that the first four pages were fairly well written and not at all amiss, in which respect also the letter is true to epileptic life:

There is a great many more chances here for young girls than in the old country. Dam such a country anyway. it is enspired by the devil and he is goin to let his fire grate fall hout some day and concume it and every thing with it thats the reason i want you to get out of it for the rivers and ditches will turn to sulphur and you will be stifeled you now dont you understand i do i have ad comenucation with the angles and the spirits of the other world and if the people dont do better than they are now the Holy and Glorious God is goin to let the stars fall to earth some day and the Sun is going to fall in the Red Sea and burn it up so you must look out it so i am a goin to notifie the ol whole world before long Just as soon as the spirits gives me the order and then i will let you now what to do with your selves you now you will now before long so you want to be reddy but i will save you any way for the lord is goin to make me chief comander general so i shall no all about it they shut me in hear and now they think i am robing some one all the time and i dontunt derstand it but the Lord does and he is goin to fix them you see he tells the truth well i dont know that i have any moor to say this time so i will shut up and say no moor from the same old d block but i all getting better now all if you b Good by and the Lord bless you y all till i hear from the next world again i let you now i keep you posted you now by the by now to all of you.

OBITUARY.

JAMES W. RANNEY.

James W. Ranney, M. D., died in New York, February 26th, 1889. He was born in Townshend, Vt., in 1824; was educated at Middlebury College and the University Medical College; engaged in private practice in Bennington, Vt., until 1853, and since that time until his death resided in New York City.

In addition to the cares and responsibilities of a large general practice, Dr. Ranney had for twenty years given special attention to insanity, holding during that period the office of City Lunacy Commissioner and acting as expert in many important lunacy cases.

WERNER NASSE.

Scarcely any name is more familiar in the literature of German psychiatry than that of Werner Nasse, whose death it is our melancholy duty to record as of recent occurrence at Bonn.

Dr. Nasse was *Geh. Medicinalrath*, professor at the University of Bonn, and director of the Provincial Hospital for the Insane in the same city. He was also well known as co-editor of the *Allgemeine Zeitschrift für Psychiatrie*, to which contemporary we extend our condolence upon the irreparable loss it suffers in the death of so distinguished a man. His age was sixty-seven.

WILLIAM HENRY OCTAVIUS SANKEY.

We regret to read in the *Journal of Mental Science* that W. H. O. Sankey, M. D., London, F. R. C. P., died of pneumonia, March 8th, 1889. He was proprietor of Boreatton-park Asylum for the Insane, and Lecturer on Mental Diseases at University College, London. He contributed several articles to the literature of insanity, and was well known as the author of "Lectures on Mental Diseases," a work that has passed through a second edition. For ten years (1854–64) he was medical superintendent of the female department of Hanwell Asylum. In 1868 he was president of the Medico-Psychological Association.

JAMES MACLAREN.

James Maclaren, F. R. C. S., died March 25th, ult., of pleurisy aged 39. He was superintendent of the district asylum at Larbert, Scotland, having previously been assistant physician at Morningside. He wrote much and well, and was an active worker.

QUARTERLY SUMMARY.

ALABAMA.—The Alabama legislature, at its session just closed, passed an act providing that criminals of a certain class, in whose behalf the plea of insanity has been interposed, shall not be placed on trial for the alleged crime, until the fact of the insanity has first been fully investigated by the court. Provision is also made for the appointment, by the governor, of an expert commission, consisting of two physicians and one lawyer, to assist, if necessary, in carrying out this act.

Another act has just been passed, excusing the superintendent of the Alabama Insane Hospital from attending as a witness at the courts, to render testimony as an expert on any question of insanity, or psychological medicine, when his absence from the hospital will, in his judgment, interfere with the discharge of his official duties.

—John Williams, of Birmingham, who was some time ago acquitted of the charge of murder and sent to the Insane Asylum at Tuskaloosa, recently sued out a writ of habeas corpus. Drs. Bryce and Sims and the nurse, all testified that he was not insane, and had not been since his admission to the asylum. Williams was asked how he explained the plea of insanity that was corroborated by his father, and by his own conduct during the trial, and also by the fact that he once attempted to commit suicide. His answers showed that he was the possessor of a degree of intelligence and normal endowments quite up to the average of men of his advantages and position in life. After a full hearing of the case he was discharged as sane. Dr. Bryce submitted in connection with his verbal testimony a written statement showing that Williams was an excitable man with a weak control of his violent passions, superadded to this his indulgence in alcohol further impaired his power of control.

ARKANSAS.—A bill has been introduced in the Arkansas legislature, providing for the construction of wards to accommodate two hundred additional patients at the State Lunatic Asylum, Little Rock. The asylum is now full and many applications for the admission of patients are refused for lack of room.

CALIFORNIA.—At the California Hospital for the Chronic Insane at Agnew, there are now 255 male patients and 120 females. The estimates for building, furnishing, etc., for the year 1889, amount to $352,000. The State is beginning to do its duty in the matter of furnishing more assistant physicians at the various hospitals.

CONNECTICUT.—The Rev. Wm. Thompson, D. D., Chaplain for the Hartford Retreat for the past eighteen years, died of pneumonia on February 27th. He was eighty-eight years of age, and officiated in the chapel regularly until within one week of his death.

DAKOTA.—The Territorial Council has appropriated $7,000 for the sinking of an artesian well on the premises of the Jamestown Hospital for the Insane. The additional east and west wings to the hospital at Yankton are now under construction and nearly finished. Two new pavilions of pleasing design have been erected.

ILLINOIS.—A bill has been introduced in the Illinois legislature looking to the erection of an institution for the care of insane convicts, the mittimus cases and the more dangerous classes generally. Enough of these patients are found in the existing hospitals to fill such a building as is contemplated. The project has the hearty endorsement of the superintendents of the four State hospitals, and should this bill become a law it would afford needed relief accompanied with greater facilities for classification. The segregation of the criminal and dangerous class of insane is a measure of wisdom and humanity.

INDIANA.—The report of the joint committee of the Indiana legislature, appointed a few weeks ago to investigate the Indianapolis Hospital for the Insane, is of sufficient general interest to call for publication in full. It is a painful duty to have to thus give prominence to an episode in modern asylum administration that recalls the worst days of the Tweed Ring in New York.

After reciting the proceeding necessary for organization, the report details in brief the salient points of the evidence, stating that the findings of the committee were based upon the testimony of the three trustees of the institution, the superintendent, the assistant superintendent, the assistant lady physician, the steward and book-keeper, Dr. Fletcher, the former superintendent; Dr. F. M. Howard, former physician in the institution; the cashier of the Meridian National Bank, of Indianapolis, and the Treasurer of State. It then reads as follows:

"We find that the full amount appropriated for the maintenance, clothing and repairs at the hospital has been regularly drawn by the treasurer, Mr. Gapen. That very often and during all the months in which said Gapen was in the employment of John E. Sullivan large sums of money, from $1,000 to $8,500 each month, would not be deposited in bank subject to payment of checks issued by said Gapen for payment of bills allowed, but was loaned to John E. Sullivan and others, from time to time, without security, and in direct violation of law, while persons holding checks were compelled to await the payment of same for want of funds in bank.

This system was continued by the treasurer of the board through all the period he was in the employment of said Sullivan, until finally over $3,000 of the money received by Mr. Gapen from the State Treasury was carried off by said John E. Sullivan, leaving Mr. Gapen indebted to the fund in that sum, while the persons who furnished the goods and whose bills had been allowed are still holding the checks on the bank for the money, which they cannot draw because of this defalcation.

We find that on February 1, 1889, there were outstanding bills or unsettled accounts of various persons and firms having claims against said hospital amounting in the aggregate to $17,694.98. These accounts have been running, some of them, since November 1, 1888, the beginning of the present fiscal year, and a few have been carried over from the preceding year.

We have had access to no books of the institution to show the receipts from products sold or from earnings at the hospital, but from the books of the State Treasurer we find the amount paid in by the institution to be for the fiscal year of 1887, $1,084.04, and for the fiscal year of 1888, $838.65.

We also find that in some cases where goods were sold or disposed of to persons who had contracts for furnishing supplies, that the amount so taken was charged to said persons on account and deducted from bills, instead of being paid into the State Treasury, as required by law.

A careful comparison and examination has been made of the bills of several contractors allowed by the board for supplies with their contracts, and we find that the amounts purchased were generally much in excess of the amounts named in contracts. This is especially noticeable in the contracts for butter, eggs, poultry, sugar, coffee and tea. A tabulated statement of such comparisons by months from March, 1887, to January, 1889, inclusive, of supplies above named will be found in the statement of the experts, the requisition books of the hospital for the several months being uniform as to the amounts needed, while the amounts purchased vary largely from month to month. Our inference is that when it was to the interest of the contractor, either on account of the reduced price of the goods purchased or the inferior quality of the goods accepted by such officers of the hospital whose duty it was to receive the same, a much larger amount would be ordered than the contract called for.

We also find that the board frequently failed to comply with the law in letting contracts for supplies; that when the bids did not suit the members of the board they refused to let the contract to any one, but authorized one of their number to make the purchases, without any restrictions or limitations as to price, quantity or quality.

The frequency with which contracts were let to John E. Sullivan and others, especially where lower bids made by competing bidders were rejected, leads us to infer that an unjust and unlawful discrimination and favoritism was indulged in by the board, which prevented competition in the sale of supplies to the hospital, and compelled the board to pay the highest price for inferior articles. The tabulated exhibits and report of the experts to this committee disclose the fact that a very few persons furnished the principal supplies for the hospital, and the evidence, we think, will show that a part of these persons, at least, were in collusion with the board to thrust inferior goods on the asylum at exorbitant prices. We think, also, that the amount of goods for which contracts were made monthly was ample to supply the institution, yet the bills show that monthly the board paid for a much larger amount of goods than the contracts called for. The excess in the one item of tea from March to December of 1887, was two thousand two hundred pounds (2,200 lbs.,) and the excess of sugar for the same time was 13,822 pounds, while the excess for coffee for the year 1888 was 14,324 pounds, and of tea for the same year, 3,047 pounds, and the excess of sugar for that year was thirty-nine thousand eight hundred and twenty-five pounds (39,825 lbs.,) and many other articles in the same proportion.

We find that at the time of his appointment as trustee, P. M. Gapen gave bond in the sum of $2,000, with Samuel C. Hanna and Robert Browning, of Indianapolis, as sureties, and that said Gapen has never filed any additional bond, and that at least one of said sureties is now wholly insolvent, and that

the other surety has failed financially since the execution of said bond, but said surety, Mr. Browning, testified before this committee that he was now worth $10,000 over all of his indebtedness.

We find that said Gapen has unlawfully appropriated to his own use several thousand dollars of the funds belonging to the hospital, and that by reason thereof he is a defaulter for over three thousand dollars, and recommend that suit be instituted against him by the proper officer to recover said funds, and that the prosecuting attorney of Marion County cause such criminal proceedings to be commenced against him as his offence justifies.

We find that Dr. Galbraith, as superintendent, under the direction of the president of the board, Dr. Harrison, on two occasions loaned $1,000 out of the contingent funds in his hands belonging to the hospital, to John E. Sullivan, but that said sums were subsequently repaid to him. We also find that on three or four occasions State Treasurer Lemcke, at the request of Mr. Gapen, loaned money to John E. Sullivan, taking an order on Mr. Gapen as treasurer, for said amounts, and that the amounts of said loans were deducted from the sums subsequently drawn by Mr. Gapen as treasurer, and we condemn the practice as unlawful and recommend its discontinuance.

We find that the plan of issuing supplies at the hospital is loose and almost wholly without system. The amount distributed is not based upon any estimate of the amount needed to supply the wants of the patients, but is determined wholly by the amounts called for from time to time by various employés of the hospital. These supplies are not issued upon any requisition of the superintendent or other superior officer, but are issued whenever called for by the cooks or other persons calling for them, the requests being sometimes in writing and sometimes verbal—no receipt being taken by the storekeeper for goods issued, and no sufficient precaution being taken to guarantee the safe delivery of the goods called for at the places in which they were claimed to be needed. The efficiency and economy of the present method depends wholly upon the honesty of the clerks and employés. No good business man would manage his private affairs in the loose manner in which this magnificent State charity is managed. Such a loose manner of doing business and keeping accounts makes it easy for collusion to take place, and for an extensive waste of supplies to occur, without giving any means of detecting the same.

We find that J. S. Hall, the present steward and book-keeper, is wholly incompetent, and should be immediately removed, and a thoroughly competent and unquestionably honest man be placed in the position.

We find that the management of the financial affairs of the hospital under the present board of trustees has been very bad, and that the evidence creates a very strong suspicion that there has been corruption and dishonesty in the purchasing and receiving of supplies.

We find that the present superintendent, Dr. Galbraith, was selected with the express or implied understanding that he would not interfere with the board and their appointees in the purchase and receiving of supplies, and that he would not interfere with the appointments of said board, and with the express understanding that he would appoint Dr. Howard as a physician at the hospital, without himself knowing anything of the qualifications of said doctor for the position, and that as superintendent he has failed to exercise his proper authority in correcting and preventing abuses at the hospital,

which, taken in connection with the fact that he has failed to adopt any proper system to regulate the amount of rations required to support the inmates of the hospital, show him to be not qualified to discharge the duties of so responsible a position as superintendent of our greatest charitable institution.

We find that the evidence does not support the accusations of immorality and intemperance made against Dr. Thomas and exonerate him from said accusations.

We find that the system of keeping the accounts in the store-room at the hospital is very defective and incomplete, and that it is impossible to ascertain from them whether the goods which are claimed to have been purchased and received were actually used at the hospital. We recommend a radical change in the whole plan of keeping said accounts.

Your committeee find that in October, 1887, P. M. Gapen, treasurer of the board of trustees, entered the employment of John E. Sullivan, in the produce business, at a salary of $25 per week, and continued in said employment until said Sullivan's defalcation and flight, his duties in such position being merely nominal, it being the evident purpose of said Sullivan in securing his services to also secure the use of the funds of the State, as well as an improper advantage in the matter of furnishing supplies to the hospital, and your committee believes from the evidence that both of said purposes were accomplished, to the very great detriment of the institution, as after said employment said Sullivan almost always secured the contract for furnishing produce to the hospital, and the amounts paid him from month to month on said account continued to increasee until the sums paid him monthly exceeded by over a thousand dollars the amount actually required to furnish the necessary supply of produce to the hospital, and that the contract for the month of February 1889, had been awarded to said Sullivan shortly before his defalcation, and would, in the opinion of your committee, have been carried out in the usual way by said P. M. Gapen, claiming to act as assignee of said Sullivan, but for the interference of Mr. Burrell, one of the trustees, who caused said contract to be canceled.

While the evidence discloses the fact that there are debts outstanding against the hospital amounting to over seventeen thousand dollars, claimed to have been caused by an insufficiency in the appropriation, your committee believe that with an honest and economical management of the business affairs of the hospital the amount of funds received from time to time would have been ample to pay all proper and necessary expenses in carrying on the hospital.

Upon some matters mentioned in the evidence the committee makes no finding, for the reason that, on account of the limited time at their disposal, they were unable to complete their investigation upon said points, and it is possible that a fuller investigation might have placed said matters in a different light.

All of which is respectfully submitted.

T. E. Howard, E. G. Henry,
Thomas Shockney, William A. Brown,
S. A. Hays, George S. Pleasants,
C. G. Conn, M. W. Fields."

KANSAS.—The board of trustees of the charitable institutions of this State recommend appropriations for the location and purchase of a site for a new asylum and the erection of such part of the proposed buildings thereon as should accommodate not less than two hundred patients; for the erection of two detached buildings in connection with the Osawatomie Asylum, to accommodate forty patients each at a cost for buildings and furniture not to exceed $250 per capita; also for the erection of another ward building at the Topeka Asylum to accommodate one hundred patients.

MARYLAND.—The plans of the new buildings now in course of construction at the Hospital for Insane, Catonsville, design an addition to the rear wing of the central building eighty-five feet in height by forty feet in width and three stories high, with a basement under the whole. The first story includes a large kitchen, storeroom and scullery. The second story joins the assembly hall and part of it will be added to it. A large dining room for two hundred male patients will also be on this floor. On the third floor will be chambers for those persons employed in the institution, who now sleep in the basement of the building. Arrangements have been made with the Catonsville Water Company to supply the institution with water. The great fall between the water works and the institution will enable water to be thrown over the highest points of the house and thus add much to the protection from fire.

MASSACHUSETTS.—The McLean Asylum has recently equipped a gymnasium with modern apparatus for the use of its lady patients. "The aim is to apply to therapeutic uses, by the newest scientific methods, the systematic practice of physical training, adapting it to individual need of each patient for whom it shall be prescribed. This is a practical enlargement of the principle upon which massage has been largely and successfully applied through the teaching of our nurses in the art of giving it. In like manner, a part of the training of every nurse is to give such knowledge of physical training as will make it possible to individualize the supervision of such exercise for each patient likely to be benefited by it. Not only this, but it is believed that it will be valuable in many cases in private practice, if the physician can find in his patient's nurse some knowledge and experience in this regard. The system is to be introduced here by a competent teacher from the Allen gymnasium in Boston, where a class of the asylum nurses is already under training."

The training school seems to have been raised to an unusually high plane of efficiency.

—On February 1, Dr. William Noyes, formerly of Bloomingdale Asylum, New York, assumed the position of pathologist at the McLean Asylum. This year Dr. Noyes will be abroad eight months for study in German laboratories and in subsequent years for three months each summer. Dr. Tuttle, of the McLean Asylum, who accompanies him will be absent on a vacation of six months.

—In the matter of Mr. Franklin B. Sanborn, ex-Inspector, whose controversy with the Board of Lunacy and Charity has been prosecuted with great vigor of late in Massachusetts newspapers, leave to withdraw was reported by the committee on public charitable institutions on his petitions for compensation

for services rendered to the State and for an investigation of certain acts of the State Board of Lunacy and Charity.

Mr. Sanborn's argument at the inquiry, March 14, ult., occupies five and a half columns of the Springfield *Republican* of the following day.

—Dr. Robert Swift, first assistant physician at the Boston Lunatic Hospital, has resigned on account of ill health. Dr. Charles G. Dewey, second assistant, has been promoted to fill this vacancy. Dr. Charles J. Bolton, a graduate of Harvard Medical College, class of 1888, has been appointed second assistant. Mr. George A. Craigan, externe at the City Hospital, has been appointed interne at the Boston Lunatic Hospital. Clinical instruction will be given to graduates by the Superintendent, Dr. Fisher, during April and May, and in the Polyclinic course three times a week during August.

MINNESOTA.—The Legislature now in session has before it bills to enlarge the Fergus Falls Asylum, or rather to go on building according to the plans adopted by the board of trustees. They expect to have the building now in process of erection ready to open for patients on or before September 1st next.

MICHIGAN.—The following changes have occurred in the composition of boards of trustees: At the Michigan Asylum for the Insane, Dr. Foster Pratt has been reappointed and Mr. Bates, of Allegan, succeeds Dr. Nichols. At the Eastern Michigan Asylum, Hon. J. S. Farrand has been reappointed and James A. Remick, of Detroit, succeeds Moses W. Field. At the Northern Michigan Asylum, Thomas T. Bates has been reappointed and John Benjamin, of Grand Rapids, succeeds J. W. French. At the Michigan Asylum for Insane Criminals, Hon. Moreau S. Crosby, of Grand Rapids, has been appointed to the board of managers vice A. H. Piper resigned, and Jerome Croul, of Detroit, succeeds John Heffron whose term of office has expired.

—After a painstaking investigation, lasting for two days, the coroner's jury rendered a verdict exonerating the authorities of the Eastern Michigan Asylum from all blame in the matter of the sudden death of the patient William Davis, which occurred in consequence of injuries sustained during and after a severe struggle with an attendant. The verdict set forth that death was accidental, and that the attendant acted in self-defense.

—Dr. Frank W. Brown, editor of *The Microscope*, and Professor of Histology and Microscopy in the Detroit College of Medicine, has been appointed pathologist to the Eastern Michigan Asylum.

—In the case of a patient who died at the Eastern Michigan Asylum in consequence of Bright's disease and disease of the heart, the following were assigned as "delusions" by those who furnished his preliminary history: "hypochondriacal fancies," "belief that he will choke if he lies down," "his statements that he had rheumatism, heart disease, bronchitis and spasms." He had been in jail for three weeks in consequence of unkindness toward members of his family, and the propriety of asylum treatment is not questioned; but the expressions of the patient, upon which the belief that he had delusions was founded, seem to have been the direct consequence of the physical suffering which his disease entailed.

—It is contemplated to place the County Asylum for the Insane at Wayne, (the only county institution for the insane in Michigan) under State supervision; and a bill is pending before the Legislature having this object in view.

—Two cases of fracture, in paretics, in consequence of muscular action have occurred at the Eastern Michigan Asylum during the past year. The first case was that of a female who was far advanced in the disease and quite ataxic. Hearing the supper-bell ring, she started in the direction of the dining room—as she in her confused state of mind supposed. An attendant called to her and told her that she was going the wrong way. She turned quickly and immediately fell to the floor. It was found on examination that she had fractured the thigh just above the knee. Repair of the fracture went on uninterruptedly, and gave promise of complete recovery without especial shortening. There was an immense development of callus however, and evidently necrosis of portions of it, for after repair seemed complete, abcesses formed in the region of the fracture. This case is to be added to the numerous ones on record of improvement in paresis following prolonged suppuration. While it was going on, her mental action began to improve, and this improvement went rapidly forward after the abcesses had closed. Her mind grew bright, she became appreciative of her surroundings, and of visits from friends, was industrious, cheerful and displayed progressively less and less ataxia in speech and locomotion. For several months she has been able to reside among her friends, and is understood to be doing well.

The second case was that of a male, aged 42, somewhat ataxic, who in attempting to turn around while out walking sustained a fracture of the leg in the lower third. Repair of the injury went on without interruption.

—Three cases of pulmonary œdema occurred in the Eastern Michigan Asylum during the month of December, and within twenty-four hours of each other. Their occurrence was regarded merely as a striking coincidence. One of the patients suffered from Bright's disease; a second from Bright's disease, with hemiplegia; a third, from epilepsy. The attack in the case of the epileptic patient came on immediately following a convulsion, and under treatment disappeared. That in the case of the hemiplegic patient was sudden in onset and proved rapidly fatal, notwithstanding vigorous medicinal measures. The pulmonary condition improved in the first case, but death occurred from Bright's disease, complicated with pericardial effusion, about two weeks subsequently.

—Fire occurred in the north wing of the detached building for laundry and shop employés, connected with the Eastern Michigan Asylum, on the afternoon of March 4th, 1889. It originated from the carelessness of an employé. The damage will not exceed $2,500.

—Additional provision is required for the criminal insane of Michigan; and it is contemplated to enlarge the present asylum either by the purchase of a farm and erection of a cottage or by building a wholly new institution apart from the House of Correction and abandoning the present asylum.

—The Michigan Asylum for the Insane, Kalamazoo, reports an increase of eighty patients during the last biennial period. Fifty-seven patients have been

discharged recovered, a percentage of 4.85 upon the whole number under treatment. The superintendent ascribes the diminished recovery rate to the relatively large and increasing number of incurable cases admitted. He speaks of the surprisingly large number of recoveries formerly reported and says "the results of treatment were so phenomenally good as to arouse suspicion in the minds of many that in some way the figures given were a decided improvement upon the actual facts. Be this as it may, the truth undoubtedly is that recoveries from mental disease were in former years more numerous and the proportion of recent and curable cases greater than at the present time." In support of this opinion an interesting tabulation is given showing "per cent of diseases on total admissions" since the organization of the asylum. By this it is seen that the number of patients suffering from general paresis steadily rose from .9 per cent in the first ten year period to 2.61 per cent in the second, and 5.09 per cent in the third. The per cent of male paretics on the whole number of males admitted was for the first period 1.8, for the second 4.89 and for the third 8.62. The percentage of cases suffering from "paralytic dementia" rose from .9 in the first period to 1.87 in the second. In the third period a marked decline is observed indicating doubtless that the distinction heretofore made between this form of disease and general paresis is no longer so strictly maintained and that in the third period these were for the most part classed in one group. Increase is also seen in the number of cases of epilepsy, dementia after paralysis and simple dementia admitted. In view of the similar experience of the Eastern Michigan Asylum this analysis is of decided interest. Does not the manifest tendency of mental disease to assume organic forms point to this as nature's method for the extinction of insanity?

The colony houses for patients have proven very successful in their workings and several cases are cited to show the practical benefits which the change from hospital to county life affords.

Several changes have occurred in the medical staff. Dr. W. L. Worcester, assistant physician, resigned in June last. He has since accepted the position of assistant medical superintendent of the asylum at Little Rock, Ark. Dr. Miles H. Clark and Dr. Herman Ostrander have been appointed assistant physicians.

—The Legislature is asked to make appropriation for two cottages and two infirmaries to be erected in connection with the Northern Michigan Asylum.

—Dr. Munson reports that an unusually large number of cases of acute exhaustive mania have been admitted to the Northern Michigan Asylum during the past winter. One patient, a male, was received in a much exhausted condition from refusal of food and constant muscular exertion. He had ulceration of the uvula and tonsils and general stomatitis, his pulse and respiration were accelerated and fatal exhaustion seemed inevitable. The administration of a quart of milk with twenty-five grains of quinine per nasal tube gave prompt relief. His pulse diminished in frequency and became stronger, and his symptoms from this time on steadily improved. He made a good recovery.

—Excellent results have been obtained at the Northern Michigan Asylum from the use of sulfonal in wakeful melancholia. Doses of from twenty to

twenty-five grains are administered an hour or an hour and a half before bedtime. No unpleasant effects have followed the use of the remedy.

NEBRASKA.—On February 5th, two boilers in the engine-room of the State Hospital for the Insane at Lincoln exploded, completely wrecking the engine-house, killing two patients and injuring two patients and two engineers. Besides the loss of life, the loss of property to the State amounted to $20,000. It will be necessary to replace the building, boilers and electric light plant. The boilers were, so far as known, in perfect condition. Last September they were overhauled and the masonry refitted.

—Dr. Edwin A. Kelley, superintendent of the Norfolk Hospital for the Insane, while driving with his wife, was shot at and seriously wounded last February by the brother of a woman employed in the hospital who had died after undergoing an operation at his (the superintendent's) hands. The assault seems to have been a cruel and dastardly affair, entitling the wounded physician to the sincere sympathy of his brethren, and their best wishes for his recovery.

NEW JERSEY.—Two bills having reference to the Morris Plains Asylum have just been introduced. One provides that the board of managers of the asylum shall hereafter be appointed by the governor by and with the advice of the senate, and that the terms of office of the present managers shall immediately cease upon the appointment of their successors. The other bill is the same, except that it does not legislate the present managers out of office, and it provides that not over five of the managers appointed shall be of one political party.

—Photography has been introduced as one of the branches of the pathological department of the Morris Plains Asylum. It is the intention to photograph the different types of mental disease and have composite pictures. An illustrated article will soon be written showing the results of this work.

—The new addition in connection with the asylum at Trenton will be occupied about May 1st. Owing to the crowded condition at the asylum the excess of patients will fill the new building.

NEW YORK.—Quite a grist of lunacy bills has been before the legislature this session. Among them are the Mase bill, providing for the establishment of a lunacy commission composed of three persons, a physician, a lawyer and a layman; the Batcheller-Fassett bill, providing for State care for all the dependent insane; the Pierce bill, providing for the transfer to Auburn Asylum for Insane Criminals of insane *convicts* only; the Van Cott bill, providing for certain amendments in the law relating to the commitment, discharge and transfer of patients including insane criminals; and the Gallup bill, regulating the commitment, custody and discharge of the insane. Several other minor bills have been introduced.

—The Hon. Wm. P. Letchworth, for many years president of the State Board of Charities, has lately resigned his office. His recently issued work on "The Insane in Foreign Countries," a review of which we publish in this

number, is a fitting method of rounding off a long official career in lunacy affairs in this State.

—Dr. Carlos F. MacDonald, of the State Asylum for Insane Criminals at Auburn, has been appointed Professor of Psychological Medicine and Medical Jurisprudence at Bellevue Hospital Medical College. This chair was formerly occupied by the late Dr. John P. Gray, of Utica. Dr. MacDonald officiated as lecturer in this department last year, and his election to the vacant professorship is proof of the esteem in which his services are held by the faculty.

—Frederick Peterson, M. D., of New York, formerly of the Hudson River State Hospital, has been recently appointed chief of clinic in the nervous department of the Vanderbilt Clinic of the College of Physicians and Surgeons; and also attending physician to the New York City Hospital for Nervous Diseases on Blackwell's Island.

—During the past winter a training school for attendants has been established at the Binghamton Asylum for the Chronic Insane.

—The following changes in the medical staff of the Bloomingdale Asylum have occurred in the current quarter: Dr. Wm. Noyes, for several years second assistant physician, has resigned in order to accept the position of pathologist at the McLean Asylum; Dr. Henry Smith Williams has been appointed to succeed him, and Dr. J. Elvin Courtney has been appointed clinical assistant.

—The governors of the New York Hospital have definitely resolved to commence building on their farm at White Plains, just as soon as a bill, now before the legislature extending an exemption from taxation of their property used for hospital purposes, now limited to New York city to territory outside of the city, becomes a law with the view of entirely removing this department of the hospital from the site that it has occupied more than two-thirds of a century.

An attendants' home is being built which, when completed, will add much to the comfort of those for whom it is intended.

—The vacancy of third assistant physician at the Hudson River State Hospital at Poughkeepsie, has been filled by the appointment of P. E. Tiemann, M. D., of New York city.

—Work on the new Asylum for the Insane at Ogdensburg, will be renewed in the spring and pushed rapidly to completion. It is expected that the institution will be ready for occupancy by the spring of 1890.

—Dr. W. D. Granger, first assistant physician at the Buffalo State Asylum, resigned his position on the 1st of February, after a service of more than eight years. Dr. Arthur W. Hurd will be promoted to the position thus made vacant, and Dr. Herman Matzinger to the second assistant's position. In accordance with the recent action of the legislature of the State, a third assistant physician has been granted to the asylum. The place is now filled by Dr. Percy Bryant, formerly assistant physician in the Ward's Island Asylum.

Dr. Arthur W. Hurd is now taking a vacation in which he will visit Havana, Vera Cruz, and Mexico for the purpose of recruiting his health.

The graduating exercises of the training school connected with the asylum were held on Thursday, March 21st. There were twelve members who received diplomas as trained attendants.

There were seventeen attendants who successfully passed the first year's examination. These constitute the two largest classes that have been connected with the school. The exercises closed with a dance and supper given to the attendants. This systematic effort to improve the character of the service by instruction, has proved of great value to the hospital.

The managers of the asylum have asked of the legislature the reappropriation of the amount appropriated two years ago for building a new wing upon the west side of the asylum, to correspond with those buildings already erected upon the easterly side of the administration building. This is rendered necessary by the greatly increased number of patients, as the asylum is now overcrowded, and demands speedy relief.

—Dr. J. B. Andrews, superintendent of the Buffalo State Asylum for Insane, has obtained leave of absence for three months and will sail May 25th for Europe.

—A position of assistant physician at the Willard Asylum, salary $800, has been thrown open to general competition under the civil service rules of the State. Candidates may address Dr. P. M. Wise, superintendent.

North Carolina.—For the Asylum at Morgantown there have recently been purchased and replaced in the wards 300 pictures. The purchase was made by Mr. John S. Pierson, of New York.

—The general assembly has just made an annual appropriation of $52,500 for the North Carolina Insane Asylum, $85,000 for the Western, and $40,000 for the Eastern Asylum. This State is as liberal towards her dependent classes as her financial condition will allow.

Ohio.—At the Athens Asylum for the Insane the positions of Dr. Agnes M. Johnson and Dr. W. P. Crumbacker were declared vacant, January 15th, and the positions have not yet been filled.

—At the Columbus Asylum for Insane, Dr. Bartley resigned March 1st, and Dr. Parker was appointed to the vacancy.

—A bill has been introduced in the Legislature for the location and construction of a new asylum in the eastern part of the State, to be fire-proof if constructed in part or wholly on the congregate plan, and to have general dining-rooms apart from the central buildings. The law provides that three of the five commissioners shall be superintendents of institutions having had not less than two years' experience. A law has also been passed by the present Legislature prohibiting the employment in the benevolent institutions of any person related to the trustees either by blood or marriage. Another bill has been introduced but it is doubtful whether it can pass this winter, requiring the officials of insane asylums to send for patients when application is made

for their admission and also to return them to their homes when discharged. Dr. Richardson says, "We still find our general dining-rooms a very decided improvement in every way; giving us much better control of the distribution of the food and of the deportment of the patients. Our infirmary wards also have been very useful in improving the condition of the unclean classes, the average number of soiled beds each night now being less than one per cent of the entire number; this too, when we are receiving all the patients of our district."

—Mr. A. Wilkin resigned his position as steward of the Toledo Asylum on January 15, 1889, and Mr. J. E. Kerans, the supervisor, was promoted to fill the vacancy. Every day the advantages of the cottage system are more marked, and with considerable liberty given to each individual patient, there have been but two attempts to escape. There are now nine hundred patients in the asylum, with a capacity for one hundred and fifty more.

Notwithstanding the predictions that the running expense of this institution would be much greater than that of asylums built on the old plan, the facts prove this objection to be unfounded. The expense for the last six months showed a yearly per capita cost of $149.78. The average number of attendants to patients is one to thirteen, thus proving that the statement that more attendants would be required, is not substantiated.

PENNSYLVANIA.—All the State hospitals are overcrowded and it is doubtful as yet in what shape relief will come. Various projects have been introduced in the Legislature by parties desirous of changing the general manner of conducting the affairs of the hospitals.

—At the Dixmont Hospital a training school for attendants is now in successful operation. Besides the instruction given by the superintendent and assistant physicans several prominent medical men of Pittsburgh lecture.

RHODE ISLAND.—Larger accommodations for the patients at the State Institutions having become a necessity, there are now in course of erection two additional wings, one for either sex, also a two-story addition to the cottage for excited patients, the first story of which is to be used for dining and store rooms, and the second as an assembly-room and chapel.

TENNESSEE.—At the Eastern Hospital, Knoxville, an electric light plant has just been put in. The interior of the hospital has also been painted throughout. The commissioners of the new asylum at Bolivar have purchased two hundred acres of additional land. The work on this institution is progressing satisfactorily and when completed will be a credit to this State.

VIRGINIA.—Since the opening of the South Western Asylum at Merwin, May, 1877, there have been admitted 382 patients, discharged 170 and died 21, leaving at present 191 patients in the institution. The Board of Directors on November 30th, appointed Dr. J. Preston, superintendent, Dr. E. S. Brady, first assistant physician, and Dr. S. K. Kernan, second assistant.

VERMONT.—The trustees under the act creating a State asylum for the insane of Vermont, are the following: Governor Wm. P. Dillingham, Waterbury; Dr. W. H. Giddings, Bakersfield; Dr. D. D. Gunt, Stowe; Hon. S. D. Hobson, East Brighton. They have determined that it shall be located at Waterbury, and plans will be adopted and work commenced as soon as practicable.

WISCONSIN.—February 20, 1889, Dr. C. E. Armstrong, first assistant physician at the Mendota Hospital for the Insane, resigned his position to engage in private practice in the city of Fond du Lac. Dr. Armstrong was connected with the hospital four and one-half years, and carried with him the good wishes of officers and employés, who presented him with an elegant silver water service, French clock, etc. Dr. E. P. Taylor was promoted from second to first assistant, and Dr. George A. Post, of Chicago, appointed second assistant.

DISTRICT OF COLUMBIA.—Among the appropriations asked for, for the Government Hospital for the Insane for the ensuing year are $15,000 for general repairs and improvements, $20,500 for special repairs and improvements, and $6,000 for additional land for grazing purposes.

CANADA.

ONTARIO.—At the Kingston Asylum, Ontario, two serious surgical operations were performed during the year. The first was an ovariotomy, and the second amputation of the thigh in a case of gangrene. Both operations were successful. It is interesting to know that the operation of ovariotomy failed to exert the slightest beneficial effect on the patient's mental condition.

—Dr. Thos. Millmar, assistant superintendent, Rockwood Asylum, Ontario, after ten years of asylum experience, has resigned his position to engage in private practice in Toronto, where he will devote particular attention to nervous diseases.

—The asylum accommodation of Ontario is already exhausted and Dr. W. T. O'Reilly, Inspector of Asylums, recommends the government to go on with the erection of another institution in the eastern part of the Province. This would seem to indicate that the government had departed from the policy heretofore adopted, viz., that of enlarging the smaller asylums.

NEW BRUNSWICK.—The assistant physician, Dr. J. A. E. Steeves, returned in the autumn from his vacation trip in Europe and resumed his place in the Provincial Lunatic Asylum at New Brunswick. He speaks gratefully of the courtesy extended to him everywhere by officers of institutions for the insane. In New Brunswick the members of the executive government form the board of asylum commissioners whose duties to the Provincial Lunatic Asylum are the same as those of the trustees of asylums in the United States. It is expected that during the year the third building of the annex asylum group will be erected and fitted for occupancy, adding accommodation for fifty patients. Several iron fire-escapes have been erected during the past year. The annex pavilion system, with agricultural department attached, established three years ago, is working admirably.

—No insane person is confined in either jail or alms-house in the province.

ellows' Hypo-Phos-Phites

(Syr: Hypophos: Comp: Fellows)

tains **THE ESSENTIAL ELEMENTS** to the Animal Organization —Potash and Lime;

The **OXYDIZING AGENTS**—Iron and Manganese;

The **TONICS**—Quinine and Strychnine;

And the **VITALIZING CONSTITUENT**—Phosphorus, ıbined in the form of a Syrup, with *slight alkaline reaction.*

IT DIFFERS IN EFFECT FROM ALL OTHERS, being pleas- to taste, acceptable to the stomach, and harmless under prolonged

IT HAS SUSTAINED A HIGH REPUTATION in America and land for efficiency in the treatment of Pulmonary Tuberculosis, onic Bronchitis, and other affections of the respiratory organs, and mployed also in various nervous and debilitating diseases with ess.

ITS CURATIVE PROPERTIES are largely attributable to ulant, Tonic, and Nutritive qualities, whereby the various organic tions are recruited.

IN CASES where innervating constitutional treatment is applied, tonic treatment is desirable, this preparation will be found to act h safety and satisfaction.

ITS ACTION IS PROMPT, stimulating the appetite, and the estion, it promotes assimilation, and enters directly into the circula- a with the food products.

THE PRESCRIBED DOSE produces a feeling of buoyancy, noving depression or melancholy, and hence is of great value in the atment of **mental and nervous affections.**

From its Exerting a double tonic effect and influencing a althy flow of the secretions, its use is indicated in a wide nge of seases.

Prepared by JAMES I. FELLOWS, Che

48 VESEY STREET, - NEW Y

Circulars Sent to Physicians on Applica

THE AMERICAN JOURNAL OF INSANITY.

THE AMERICAN JOURNAL OF INSANITY is published quarterly, at the State Lunatic Asylum, Utica, N. Y. The first number of each volume is issued in July.

EDITOR,

G. ALDER BLUMER, M. D., *Medical Superintendent.*

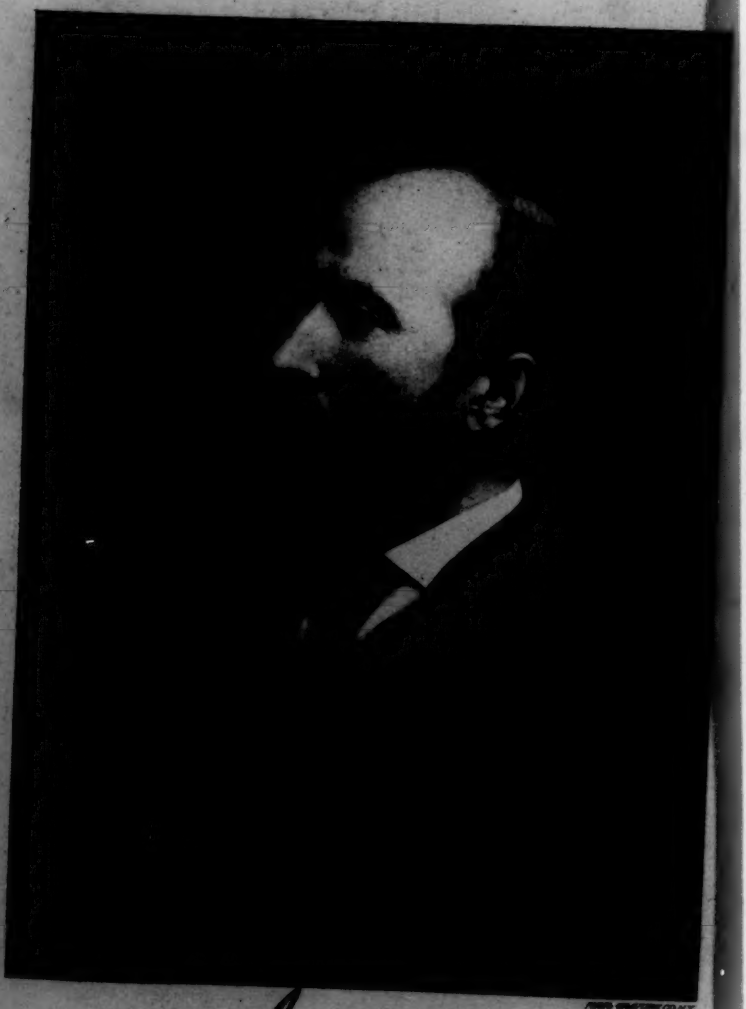
ASSOCIATE EDITORS,

CHARLES W. PILGRIM, M. D.,
CHARLES G. WAGNER, M. D.,
WILLIAM MABON, M. D.,
CHARLES E. ATWOOD, M. D.,
} *Assistant Physicians.*

THEODORE DEECKE, *Special Pathologist.*

TERMS OF SUBSCRIPTION,

Five Dollars per Annum, in Advance.



T. H. Johnston.

m-I

XLVI

all

SANITY.

W YORK STATE

h of medicine.—Gnorrus

YLUM.